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THE WORLD WAR

A Short Account of the Principal Land Operations on the Belgian, French, Russian, Italian, Greek and Turkish Fronts

BY

COLONEL G. J. FIEBEGER

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CHAPTER I.

ARMIES AND PLANS AT THE BEGINNING OF THE WORLD WAR.

Shortly after the outbreak of the World War, eight nations became involved in its military operations; these were Belgium, France, Great Britain, Russia, Serbia and Montenegro on the one side and Germany and Austro-Hungary on the other. Operations were at once begun on three fronts: on the west front the greater part of the German Army became engaged with the Belgian, French and British armies; on the east front a small part of the German Army and the greater part of the Austrian Army became engaged with the Russian Army; on the south front, the smaller part of the Austrian Army became engaged with the armies of Serbia and Montenegro.

The Belgian Army was reorganized in 1913 when universal conscription was adopted instead of conscription with substitution. Under the new organization the army was to be made up of 6 divisions, 2 cavalry divisions and 1 cyclist battalion. Each infantry division was made up of three mixed brigades of two regiments of infantry and 3 four-gun batteries. The divisional troops consisted of 2 field batteries and 4 field howitzer batteries, 1 regiment of cavalry, engineers, etc. The cavalry divisions were made up of 3 two-regiment brigades and 3 four-gun batteries. Half the battalions of infantry had machine gun sections of two guns. The total strength of the field army was about 125,000 men and each division about 20,000 men. In addition to the field army, it was necessary to provide garrisons for the three great fortresses of Liege, Namur, and Antwerp.

The peace strength of the army was only 43,000 men. Its expansion at the outbreak of the war necessitated the enrollment of a large number of reserves who had been long separated from the army and the course of events gave no time for their proper training.

The French Army was the most important Allied force on the west front at the outbreak of hostilities, it had a peace strength of 660,000 men. It was composed of the Metropolitan and Colonial armies. The Metropolitan Army had 45 divisions organized into 21 army corps; of these all but one were permanently stationed in their corps districts in France. The 19th corps had its 4 divi-

sions in Algieria, Tunis and Morocco, but was to be brought to France at the outbreak of the war. The Colonial Army had 12 regiments in France and the remaining regiments in the French colonies other than those of North Africa; only the regiments in France were available at the outbreak of the war and from them was formed the Colonial Corps. Attached to the army corps for administrative purposes were 10 cavalry divisions and 32 battalions of chasseurs.

As the system of universal conscription had been in operation in France since 1872, the army had a large supply of trained reserves. At the outbreak of the war, service in the French Army was 3 years with the colors, 11 in the Reserve, 7 in the Territorial Army and 7 in the Territorial Reserve. The Reserve was to furnish the men for recruiting the regular army to a war footing and to furnish in addition reserve divisions of which 25 seem to have been formed on the mobilization of the army. The Territorial Army, composed of men from about 35 to 40 years of age, was also to form a large number of divisions for fortress garrisons, etc. A number of these divisions took an active part in the early part of the war. The Territorial Reserves, organized only in small units, were employed to guard railways, etc.

At the beginning of the war, the French division was usually composed of 12 battalions of infantry and a regiment of 9 four-gun batteries of field artillery. Two divisions formed an army corps which had in addition a regiment of cavalry, 12 four-gun batteries of field artillery, a battalion of engineers and special arms. There was no heavy artillery attached to the corps as this was army artillery. Some of the chasseur battalions were attached to corps and others formed chasseur divisions. The cavalry division consisted of 6 regiments of cavalry, 1 bicycle company and 2 four-gun batteries; it was formed into 3 brigades. When cavalry corps were organized, they usually consisted of 3 divisions. Each infantry battalion and each cavalry brigade had a machine gun section with 2 guns. The strength of the division was about 15,000 men and the army corps of 2 divisions about 33,000 men.

At the beginning of the war, the French Army was able to mobilize 45 divisions of the active army, 2 divisions of Colonial troops, a division of chasseurs and 25 divisions of reserves, or 73 divisions in all. Besides the corps cavalry, there were available 10 cavalry divisions.

The Regular Army of Great Britain had a strength of about 250,000 men distributed as follows:

Home establishment	125,000
Indian establishment	75,000
Colonial establishment	45,000
	245,000
Army reserve	145,000
	390,000

On mobilization, there was to be formed from the Home Establishment and the Army Reserve, the Expeditionary Force. All the plans for the mobilization of this force were completed and it could be placed on a war footing in a short time. It was composed of 6 infantry divisions, a cavalry division and army troops. Each infantry division had 12 battalions of infantry organized into 3 brigades, 1 squadron of cavalry, 3 battalions of field artillery each composed of 3 six-gun batteries, 1 battalion of field howitzers composed of 3 six-gun batteries, 1 heavy battery of four guns, engineers, signal troops, etc. Each battalion of infantry had a machine gun section. The entire division had therefore about 12,000 infantry, 76 guns and howitzers, and 24 machine guns; its total strength was about 18,000 men. The cavalry division had four brigades of cavalry of 3 regiments of 3 squadrons each, and four six-gun batteries besides engineers, etc. Its total strength was about half that of an infantry division. The army troops consisted of an infantry brigade, a cavalry brigade and the usual train troops. The total strength of the Expeditionary Force was about 120,000 men.

The Expeditionary Force, for which replacements could be furnished by the Army Reserve, was the only British force available for the early operations of the war. No other trained troops would be available until regulars were withdrawn from the colonies and new divisions organized or divisions were brought from India. Other troops formed from volunteers, the Special Reserve and from the Territorial Army would require a long period of training.

The Russian Army had a peace strength of about 1,200,000 men. It was distributed throughout the empire in the following manner:

Russia	27	army	corps	formed	of	53	divs.	and	8	rifle	brigades.
Caucasia	3	"	"	"	"	5	"	"	4	"	"
Turkestan	2	"	"	"	"	—	"	"	6	"	"
Siberia	5	"	"	"	"	10	"	"	—	"	"
	37	"	"	"	"	68	"	"	18	"	"

Two rifle brigades are equivalent to a division.

The cavalry divisions were distributed as follows:

Russia	19	divisions	and	2	independent	brigades.
Caucasia	4	"	"	—	"	"
Turkestan	1	"	"	2	"	"
Siberia	—	"	"	—	"	"
	24	"	"	4	"	"

The division had 16 battalions of infantry and 6 eight-gun batteries with a total strength of about 18,500; the rifle brigade 8,500; and the cavalry division 4,000. The army corps had a strength of about 40,000 and was made up of 2 divisions and a brigade of cavalry.

Since 1912 service in the Russian Army had been 3 years with the colors, 7 years in the First Reserve, 6 years in the Second Reserve and 5 years in the home defense contingent. The annual recruit class numbered about 400,000 men. At the outbreak of the war 2,000,000 men of the first reserve were called into service to recruit the army to war strength, form reserve divisions and supply replacement troops. The Russian program provided for the formation of 32 reserve divisions in Russia proper from the reserves.

As a result of the reforms introduced into the Russian Army after the Russo-Japanese War, the regular divisions of the Russian Army took the field well armed and equipped but there were not sufficient reserves of arms or equipments to replace the material lost in campaign and it was difficult to secure these supplies from the Allied and neutral countries.

The Serbian Army had been recently engaged in two wars in which it had gained valuable experience but had lost a large number of men. It was thought however that it could place in the field about 200,000 more or less trained men. The army was recruited by universal conscription, the periods of service in the First Ban being 1½ years with the colors and 8½ years in the reserve. The army was small and only about 20,000 recruits were taken in each year. In time of peace the army consisted of 5 divisions each composed of 12 battalions of infantry and a regiment of artillery composed of 9 four-gun batteries; on mobilization each regiment was to receive another battalion of infantry making the organization similar to the Russian division but with fewer guns. In addition to the divisions, there was a cavalry division, a regiment of mountain artillery, a regiment of field howitzers, and a regiment

of heavy artillery. Five additional divisions were authorized in 1913, but these could not have been fully organized at the beginning of the war. They were probably completed at the outbreak of the war by volunteers and men from the Reserves of the First Ban, thus giving a field army of about 200,000 men.

A second reserve or Second Ban was composed of the men who had finished their service with the colors and corresponded in age limits to the Territorial Army of France. It was not organized in time of peace. These men would serve as replacement troops. The Third Ban corresponded to the Territorial Reserve of France but was not organized. As the Serbian Army was fighting on its own soil in 1914 it may be assumed that every able bodied veteran of the recent wars was in the ranks.

The strength of the Montenegrin Army was estimated at about 30,000 to 40,000 partially trained men organized into small battalions of infantry. It had 25 four-gun batteries and a number of machine guns. The army was equipped for mountain warfare but not for general field service, and will not be considered in estimating the strength of the Allied forces.

At the outbreak of the war, the peace strength of the German Army was about 780,000 men. It was organized into 25 army corps of which 3 were from Bavaria, 2 from Saxony, 1 from Wurtemberg and the remainder from Prussia and the smaller States. Each corps was composed of 2 divisions whose normal composition was 12 battalions of infantry, 1 regiment of cavalry, 1 brigade of field artillery, 72 guns, and a battalion of engineers. Some of the divisions had three brigades or 18 battalions of infantry. Each infantry regiment had a machine gun company of 6 guns, or 2 per battalion. Each army corps had a regiment of heavy artillery of 8 batteries of 4 guns or howitzers each.

The German Army had 110 regiments of cavalry of which 50 would serve as divisional cavalry and 60 would form 10 cavalry divisions of 3 brigades each. The cavalry division had 3 six-gun batteries and a machine gun section.

Of special infantry, corresponding to the French chasseurs, the German Army had 18 battalions of rifles each with a machine gun company and a bicycle company. In addition there were 36 machine gun companies unattached.

The German Army was especially strong in trained reserves as the army was recruited by universal conscription, its enlisted strength was kept at about one percent of the population, and the service with the colors was two years. The periods of service were 2 years with the colors, 5 in the Reserve, 5 in the 1st Land-

wehr, 5 in the 2nd Landwehr and 7 in the Landsturm. The Reserve and 1st Landwehr corresponded to the French Reserves, the 2nd Landwehr to the Territorial Army, and the Landsturm to the Territorial Reserve. About 300,000 recruits were taken into the army each year.

On mobilization the Germans could probably form from the Reserve and 1st Landwehr about twice as many divisions as the French could from their Reserve, or about 50 divisions. It may be assumed therefore that she formed early in the war about 100 divisions.

The Austro-Hungarian or Austrian Army had a peace strength of about 350,000 men. There were 15 army corps of 2 divisions and 1 of 3 divisions. In addition there were 16 divisions of Austrian and Hungarian Landwehr who had a shorter term of service than the regular army and had not served regularly with the colors. One of these was assigned to each corps. The normal composition of the division was similar to the Russian division; 16 battalions of infantry, ½ regiment of cavalry, 2 regiments of field artillery with 48 guns and 2 six-inch howitzers. Each army corps had in addition 2 battalions of heavy artillery, 8 howitzers, and a battalion of engineers.

In the regular cavalry there were 19 brigades and in the landwehr 7 brigades from which there were to be formed 8 regular and 8 landwehr cavalry divisions with 3 four-gun batteries each. Like the Russian cavalry, the Austrian cavalry regiment had 6 squadrons and 4 regiments formed a cavalry division.

The army was recruited by universal conscription; the periods of service were 2 years with the colors, 8 years with the reserve, and 2 years in the landwehr. At the outbreak of the war, the strength of the army may be assumed as 39 divisions of infantry and 10 of cavalry.

In one respect the Austrian Army was weaker than any of the others; it was made up of men of many different races speaking different languages. The Germans and Hungarians who ruled the empire furnished only half the strength of the Austrian Army; the other half was made up of Czechs, Slovaks, Rumanians, Jugo-Slavs and Italians who had little interest in fighting for the Empire.

The following gives a rough estimate of the field forces that were ready to begin operations at the end of period of mobilization. This does not include French Territorials or German units corresponding to them. After the first operations, the available means of the various States in men, material resources, neutral assist-

ance, etc., became factors which grew in importance as the war was prolonged.

	Infantry Divisions.	Cavalry Divisions.
Belgium	6	1
France	73	10
Great Britain	6	1
Russia proper	57	20
Russia, reserves, estimated.	32	—
Siberia	5	1
	179	33
Germany	100	10
Austria	39	10
	139	20

The following table gives the composition of the army corps in the five principal armies on mobilization in 1914:

	Infantry	Cavalry	Artillery field	Artillery heavy
British...	24 battalions	¼ regiments	144 pieces	8 pieces
French...	"	1 "	120 "	—
German...	"	2 "	144 "	32 "
Russian...	32 "	1 brigade	96 "	—
Austrian..	32 "	½ regiment	96 "	10 "

Although the Central Powers were relatively weak in the number of divisions, their central position with their excellent railway systems and the more thorough preparation of Germany did much to counter-balance the weakness in numbers.

GENERAL PLANS.

From the formation of the offensive and defensive alliance between France and Russia, the General Staff of each country had been working on a joint plan of operations in case of war with the central allied States of Germany, Austria and Italy. Since the problem first presented itself it had been simplified by diplomatic means, as the German Navy was neutralized by an understanding with Great Britain, and the neutrality of Italy was assured if Germany and Austria assumed the offensive. As the Central Powers might assume the offensive on either front while remaining on the defensive on the other, it was desirable that both the French and Russian armies should be concentrated as rapidly

as possible on the frontier, and each should attack in order to relieve the pressure on the other and thus compel the Central Powers to divide their forces more evenly between the eastern and western fronts.

The problem of mobilizing the French Army and concentrating it on the frontier was an easy one because of the excellent system of French railways; but the Russian problem was more difficult. The great extent of that country required a wide distribution of her army corps, and the thin network of railways made it impossible to mobilize her corps and transport them to the frontier as rapidly as France or the Central Powers. To meet the situation, as strong a force as was deemed possible was concentrated in the three frontier districts whose headquarters were Wilna, Warsaw and Kiev. In these three districts were stationed about one-half of the Russian European corps and three-fifths of the Russian cavalry divisions. The advance posts of the Wilna district were on the frontiers of East Prussia and those of the Kiev district on the frontier of Galicia. From the Warsaw district troops could be moved either into East Prussia or into Galicia. In the Warsaw district the army corps were all east of the Vistula River, two hundred miles from the frontier, as it was deemed dangerous to station them in West Poland; this territory was occupied by cavalry divisions only.

The second line districts had their headquarters at Petrograd, four hundred miles from Wilna, at Moscow seven hundred miles from Warsaw and at Odessa four hundred miles from Galicia. In these districts there were 11 army corps and 3 cavalry divisions, designed to reinforce the frontier district as soon as railway conditions would permit.

In the event of war between Russia and France and the Central Powers it was planned to concentrate the great mass of the German Army on the west front to seek a decision with France while the Austrian Army was concentrated on the eastern front against Russia. This would draw the main Russian force to the Austrian front and remove the danger of an immediate invasion of East Prussia by a large Russian force. Before Russia could concentrate her troops on her frontier to overwhelm the Austrian Army, it was assumed that German troops could be withdrawn from France.

At the outbreak of the war, the situation was however changed by the fact that Austria was already at war with Serbia and had mobilized a large part of her army on the Serbian front. The whole Austrian Army was therefore not available for operations

against Russia. This was probably the cause of the prompt declaration of war August 1 by Germany against Russia as soon as it was ascertained that secret orders had been given for the mobilization of the Russian armies by the Minister of War.

Concentration on the West Front.

French Army.—In order to understand the French scheme of concentration it must be remembered that in the Franco-German War, both France and Germany had respected the neutrality of Belgium and it was generally admitted that the invasion of that State would lead to complications if not war with Great Britain. Since that war, Belgium had constructed the fortifications of Liege and Namur which made invasion along the line of the railway from Cologne to Paris more difficult. If Germany should violate the neutrality of Belgium the probabilities were that she would move through the territory south of Liege and Namur.

It was the ardent desire of every Frenchman to recover the lost provinces of Alsace and Lorraine, and therefore an invasion of these provinces would meet with universal approval in France. However, on making the plan it was necessary to consider the possibility of an invasion of south Belgium by the German armies. Should Russia carry out her part of the joint plan, it was not probable that the German force on the west front would at the end of the concentration period greatly outnumber the French force, and it might even be less strong. An offensive campaign was therefore deemed practicable.

The general plan of concentration contemplated the formation of six armies from the active corps and reserve divisions.

Army of Alsace	*First Army*	*Second Army*
General Pau	General Dubail	General Castelnau
2 corps	4 corps	5 corps
1 division chasseurs	2 reserve divisions	5 reserve divisions
2 reserve divisions		
Third Army	*Fourth Army*	*Fifth Army*
General Ruffey	General Langle	General Lanrezac
4 corps	4 corps	3 corps
3 reserve divisions	3 reserve divisions	
2 cavalry corps	Army Troops	

Of the ten cavalry divisions, three formed the 1st cavalry corps, three the 2d corps, two were attached to the 4th Army, one to the 3d Army and one to the Army of Alsace.

The Army of Alsace was to be formed in the area around Belfort for the invasion of southern Alsace. The 1st Army was

formed in the area northeast of Epinal and was to be the right wing of the main invading force. The 2d Army was formed in the area at Toul and Nancy and was to be the center of the main invading force; to it was attached the 2d cavalry corps. The 3d Army was formed on the left of the 2d, east of Verdun, and was to be the left wing of the invading force. The 4th Army was concentrated in the area behind the 2d and 3d armies as a general reserve. The 5th Army was concentrated in the area to the left of the 3d Army, and was facing the boundary of southern Belgium. Still further west, at Verviers near Hirson, was a group of three reserve divisions also available on the Belgium front. Other reserve divisions were in the fortified curtain extending from Verdun to Toul.

The concentration was designed to meet two situations. If the Germans concentrated all their forces on the Franco-German frontier the advance into Lorraine would be made by the 1st, 2d, 3d, and 5th armies with the 4th Army in support. If the Germans invaded southern Belgium, leaving only a part of their forces in Alsace and Lorraine, the 5th Army was to move to the left making room for the 4th, and the 3d, 4th and 5th armies were to cross the Meuse and attack the German armies in southern Belgium, while the 1st and 2d attacked in Lorraine. In both cases the Army of Alsace would advance into southern Alsace.

The mobile garrison of the fortress of Maubeuge, 25,000 men, and the group of reserve divisions at Hirson would prevent any raiding operations between Maubeuge and the Meuse River.

The concentration did not provide for a German movement in force through Belgium north of the line Namur and Maubeuge, since it was not believed that the Germans would extend their army so far north, and if they did, they must weaken their line in southern Belgium and in Lorraine, where if the French won a victory, any German forces north of that line would be obliged to retreat. It is possible that the British and Belgians were expected to hold the line of the Meuse below Namur.

The French armies were commanded by General Joffre, who had since 1911 been assigned to the command in case of war in addition to his duties as Chief of Staff of the French Army. The commanders of the armies and corps were made on his recommendation.

British Army.—Great Britain did not declare war until the German troops invaded Belgium. The Expeditionary Force was at once mobilized and the first troops reached France about the middle of August. The force sent over consisted of the cavalry

division, 4 infantry divisions forming the 1st and 2d army corps, 1 brigade of infantry for the line of communications, and 1 brigade of army cavalry. Two divisions were temporarily detained in England. At the request of the French commander, the British Army was concentrated around Maubeuge with headquarters at Le Cateau, instead of around Amiens as originally planned.

The command of the British Expeditionary Force was given to Sir John French, an officer of wide experience who had been appointed Chief of the Imperial General Staff in 1911.

Belgian Army. — The mobilization of the Belgian Army was ordered in the last days of July and at once one of the six divisions was sent to Liege and another to Namur. The other four divisions were prepared for field orperations.

German Army.—The German Army was mobilized at the same time as the French, and at about the same time it began entraining for the frontier. The problem that confronted the German military authorities when preparing for this war was not so simple as that which confronted General Moltke in 1870, for then the German Army was nearly twice as strong as the French Army, the former having 475,000 men and the latter 250,000 men. In preparing the German plan it was not possible to count on great numerical superiority. After the Franco-German War, the French had greatly strengthened their eastern frontier by the construction of fortifications. These consisted of the fortified curtains of Verdun-Toul and Epinal-Belfort, each consisting of two great fortresses connected by a continuous line of barrier forts at intervals of seven to ten miles. Although these barriers were constructed a quarter of a century before, and the forts could no longer be considered proof against the recently constructed howitzers, the barriers would however greatly strengthen the resistance of the French armies if an attempt were made to penetrate France from Alsace and Lorraine.

On the Belgian front, France had also constructed fortifications at the same time she constructed the barrier curtains in the east. With the exception of Maubeuge these however had long been neglected as Belgium had since fortified Liege and Namur, and with her Russian alliance and her reorganized army, France was no longer as weak as she was immediately after the Franco-German War.

It was possible to avoid the barrier curtains of France by an advance through Belgium; the farther the northern flank was from Verdun, the more difficult it would be for the French armies to

oppose the movement. It was therefore decided to invade not only southern but also northern Belgium and enter France both north and south of the Sambre River and the fortress of Maubeuge. It involved the probability of war both with Belgium and Great Britain, but in view of the weakness of the forces these two countries could mobilize at the beginning of the war, it was probably thought such an accession to the armed strength of France would not prevent a successful campaign.

In making his plans, the German Chief of Staff had given little weight to the effect that the unwarranted invasion of Belgium would have on the world in general, which did not consider that the alleged military necessity was any excuse for disregarding the rights of a small state. As it turned out it proved to be a strategic blunder.

The plan of concentration therefore provided for the formation of seven armies, five of which were to invade Belgium and two to defend the provinces of Alsace and Lorraine against the first attempts of the French armies.

First Army	*Second Army*	*Third Army*
General Kluck	General Bulow	General Hausen
4 active corps	3 active corps	3 active corps
2 reserve corps	2 reserve corps	1 reserve corps
3 landwehr brigades	2 landwehr brigades	1 landwehr brigade

Fourth Army	*Fifth Army*	*Sixth Army*
Crown Prince of Wurtemberg	German Crown Prince	Crown Prince of Bavaria
3 active corps	3 active corps	4 active corps
2 reserve corps	2 reserve corps	1 reserve corps
2 landwehr brigades	5 landwehr brigades	landwehr brigades

Seventh Army
General Heeringen
2 active corps
2 reserve corps
landwehr divisions

Two independent cavalry corps of 3 divisions each under German G. H. Q. were to operate with the I and II armies, a cavalry corps with the IV and V armies and cavalry divisions with the others. The landwehr brigades were to protect the communications.

Shortly after the armies began the campaign one corps was detached from the II Army, one from the III Army, and a cavalry division from the I cavalry corps and sent to East Prussia which was being invaded. This left five corps in the II Army and three

in the III Army. One reserve corps and the landwehr brigades of the I Army were later detached to form the army of occupation of Belgium, leaving five corps for the invasion of France.

The I Army was concentrated in the extreme north close to the Holland frontier and was to form the right of the invading force. The II Army was concentrated in an area farther south. The III Army was concentrated in the northern part of Luxemburg. The IV Army was concentrated in the middle of Luxemburg. The V Army was concentrated in the southern part of Luxemburg and between Luxemburg and the fortress of Metz. These five armies constituted the great invading force that was to move through Belgium and Luxemburg, cross the frontier and make a great wheel to the south around the fortress of Verdun to envelope the French armies. The VI Army was concentrated in Lorraine between Metz and Saarburg, and the VII Army was concentrated in Alsace. These armies were to be temporarily on the defensive but were to assume the offensive when a favorable opportunity offered by the withdrawal of the French forces to meet the main attack. Southern Alsace was then to be occupied by landwehr divisions which were being mobilized.

After the withdrawal of the German forces sent to East Prussia and those retained in Belgium, the Germans had 34 regular and reserve corps of about 69 divisions and perhaps 5 landwehr divisions on the west front. The French could concentrate 45 active and 25 reserve divisions and 2 divisions of the Colonial corps. As the British sent 4 divisions to France at once, the number of opposing divisions was about the same. As the German divisions were stronger than the French, the Germans had numerical superiority but it was not very great. Their immediate advantage lay in their more extended deployment due to their invasion of northern Belgium.

The command of the German armies was exercised by the Emperor, who had with him the Chief of Staff of the German Army, General von Moltke, a nephew of the famous field marshal. The plan of concentration however was drawn up by his predecessor in the position of Chief of Staff.

CHAPTER II.

FROM THE FRONTIER TO THE MARNE.

On July 25, Austria broke off diplomatic relations with Serbia and orders were given for the mobilization of half the Austrian active army. It is probable that from this date preparations began to be made for a possible war in all the interested countries which later made it possible to shorten the periods of mobilization and concentration.

Although the general order for mobilization was not issued in France and Germany until the afternoon of August 1, the concentration of the French armies on the frontier was completed on the 18th, and that of the German armies a few days later. On August 14, orders were issued for the French advance into Alsace and Lorraine, and on the 16th for the German advance into Belgium.

While the armies were being mobilized and concentrated, there occurred minor operations by the covering forces along the frontier. In the south the French invaded Alsace and captured Mulhausen but were compelled to withdraw to the frontier. In Lorraine there was also a French advance followed by a withdrawal. The Germans occupied Luxemburg and advanced into Belgium and captured Liege.

Liege.—The capture of Liege was essential to the German plans, and when the request for permission to march their forces through Belgium was refused, three divisions with covering cavalry were hastily sent to effect its capture. Liege was considered a very strong fortress and was surrounded by a girdle of five large and five small forts at commanding points about five miles from the center of the city. The principal armament of the large forts consisted of six 15cm. and 12cm. guns and the smaller ones four. Besides these guns, there were one or two mortars and three or four rapid fire 55mm. guns in each fort. All of these pieces were in armored turrets and the garrison of each fort, about 400 or 500 men, was amply protected by concrete casemates from light and heavy field artillery. With its forts and the field force of about 25,000 men, Liege was a formidable place to attempt to capture by surprise or assault even though the Belgians had no time to thoroughly intrench the intervals between the forts.

From the German accounts it would appear that six German brigades with field artillery invested the girdle of forts on the north, east and south on August 4 and 5, and on the night of the 5th

attempted to capture Liege by penetrating the intervals between the forts to capture them from the rear. All succeeded in penetrating the line but only one remained within this line on the 6th; all the others retired because of heavy losses. Not appreciating the situation, the 3d Belgian division was withdrawn on the night of the 6th, and that night the German brigade captured the bridges over the Meuse and the town itself on the 7th. However, the forts still held out and the Germans brought up the entire VII, IX and X corps with siege and seacoast artillery to effect their capture. The last fort surrendered on the 16th. Until the forts were taken the Germans could not advance as the VII, IX and X corps were to form part of the first line.

After August 7 the Belgian Army took up a position about 30 miles from Liege covering Brussels and its own line of retreat to Antwerp, and the German cavalry established a screen between it and Liege to cover the concentration of the I German Army. The II cavalry corps, General Marwitz, of three divisions was thus employed. The I cavalry corps of three divisions formed a screen south of Liege and moved westward toward Namur and Dinant. This screen was prolonged southward by the IV cavalry corps attached to the IV and V armies concentrating in rear. The cavalry was supported by rifle battalions with machine guns.

As soon as it was known that the Germans had invaded Belgium, the 1st French cavalry corps of three divisions, General Sordet, supported by an infantry brigade was sent into southern Belgium to reconnoiter the country east of the Meuse, and one corps of the 5th Army was sent northward to hold the line of the Meuse south of Namur. The French cavalry was unable to penetrate the German screen to secure information and therefore recrossed the Meuse and took station in the vicinity of Dinant.

Operations in Alsace–Lorraine.—Before the concentration of the French armies was completed, it was evident that the invasion of Alsace–Lorraine by all the French armies was no longer practicable, and that the 3d, 4th and 5th armies must be retained to meet the German forces concentrating in Belgium and Luxemburg. The invasion of Alsace–Lorraine must be carried out by the 1st and 2d armies and the Army of Alsace.

On August 14, the French concentration was nearly enough completed to permit the advance of the three southern armies, and the invasion of Alsace and Lorraine was ordered. It was designed to develop the German concentration in those provinces and perhaps to draw German forces to this front.

The 1st and 2d armies, Generals Dubail and Castelnau, were to advance together forming a line extending from the Vosges Mountains south of St. Die northward to Pont-a-Mousson. Castelnau had the 9th, 13th, 14th and 20th corps and the 2d cavalry corps, and Dubail the 8th, 15th, 16th and 21st corps. The 18th corps remained in Toul and the reserve divisions protected the flanks of the line. On the 18th the combined armies without much opposition reached a line running from Pont-a-Mousson through Chateau Salins to Sarreburg and thence southward along the eastern slopes of the Vosges Mountains in the direction of Colmar. At this point the 9th corps was withdrawn from the line to be sent to the 4th Army and was replaced by reserve divisions. On the 19th, the German VI and VII armies were found in front in a strongly intrenched position backed by field and heavy artillery. This position was assaulted with considerable loss and when the Germans counter-attacked on the 20th, the French were compelled to retreat and eventually fell back to their original position along the Meurthe River and its tributary the Mortagne, with the left resting on the heights north of Nancy, known as the Grand Crown, and the right on the Vosges Mountains near St. Die. Here the French armies were reinforced and defended their line against many assaults and guarded the gap in the French frontier fortresses between Toul and Epinal until the battle of the Marne had been won and the two German armies retired back toward the frontier. In these battles the VI German Army was composed of the I, II and III Bavarian corps, the XXI corps and the I Bavarian reserve corps; the VII Army consisted of the XIV and XV active corps and reserve corps. Later these armies were reinforced by a division of the XVI reserve corps and landwehr troops. The prolonged struggle between the 1st and 2d French armies and the VI and VII German armies was the first of the three great battles on the frontier and was called the battle of Lorraine.

Although neither side could claim a victory in the battle of Lorraine, the French armies fulfilled the more important mission, since they prevented the junction of the VI and VII German armies with the other five German armies, while they themselves remained in touch with the other French armies and were able to detach two corps to assist in the battle of the Marne.

The Army of Alsace, commanded by General Pau, consisted of the 7th corps, a chausseur division and a number of reserve divisions. In its front was a group of German Landwehr brigades or divisions. General Pau recaptured Mulhausen on August 19 and was then to

advance northward, but the retreat of the 1st and 2d French armies on the following day halted his further advance. A few days later General Joffre decided to withdraw this army and sent several of its divisions to other points. One division of the 7th corps was left at Belfort while the other with a reserve division formed a provisional 7th corps which was sent to Amiens to form the nucleus of the new 6th Army. Some of the reserve divisions were sent to the 1st Army.

Movements of the 3d, 4th and 5th French Armies.—With the capture of Liege, and the concentration of large German forces on the Belgian frontier in the second week of August, it became evident that the Germans were preparing to invade northern Belgium with a strong force; this necessitated a change in the French plan. The 5th French Army was now ordered to the Sambre River between Namur and Maubeuge to advance into northern Belgium while the 4th and 3d armies alone were to advance against the Germans in southern Belgium. As soon as practicable, the British Army was to form line on the left of the 5th French Army.

On August 15, the two remaining corps of the 5th Army started from the vicinity of Mezieres to march up into Belgium into the angle between the Sambre and Meuse rivers. On the same day, the I German cavalry corps appeared in the vicinity of Dinant on the Meuse and endeavored to seize the bridges. This attempt was frustrated by the 1st corps of the 5th French Army which had been sent to guard the Meuse the preceding week.

As the 5th Army was thus assigned a more difficult task it became necessary to strengthen it. Two divisions of the 19th corps en route from Algeria to the Army of Alsace were therefore diverted and railed to Hirson, and the 18th corps, in reserve at Toul, was entrained for Maubeuge. Some days later the 1st cavalry corps and the three reserve divisions near Hirson were also assigned to this army. When the last of the reinforcements would reach it, about August 23, the 5th Army would have six and a half corps and a cavalry corps.

The 4th Army was directed to occupy the line of the Meuse between Dun and Givet preparatory to an advance into southern Belgium. This army was reinforced by a division from the 9th corps of the 2d Army and the Moroccan division of the 19th corps together forming a provisional 9th corps, and a corps from the 3d Army. In its new position, it would have seven corps and two cavalry divisions.

The 3d Army was to evacuate the area south of the Verdun–Metz road and concentrate its three remaining active corps with its cav-

alry division to cooperate with the 4th Army. Its three reserve divisions, forming the Army of Lorraine, were left in front of Metz.

Since a raid by German cavalry was now deemed possible through northern Belgium a barrier was formed extending along the Belgian frontier from Maubeuge to the English Channel. This barrier was to be guarded by four Territorial divisions with a general reserve consisting of two reserve divisions posted near Arras. These troops were under the command of General d'Amade.

On the 16th of August, the British commander, General French, visited General Joffre at his headquarters at Vitry le Francois on the Marne and was informed of the military situation as it appeared to the French G. H. Q.

On the 18th General French imparted this information to his corps commanders at Le Cateau. (1914 by Sir John French.)

"Between Tirlemont (to the east of Louvain) and Metz, the enemy has some thirteen to fifteen army corps and seven cavalry divisions. A certain number of reserve troops are said to be engaged in the offensive of Liege, the forts of which are believed to be still intact, although some of the enemy's troops hold the town.

"These German corps are in two main groups, seven to eight corps and four cavalry divisions being between Tirlemont and Givet. Six to seven corps and three cavalry divisions are in Belgian Luxemburg.

"Of the northern group, it is believed that the greater part—perhaps five corps—are either north and west of the Meuse, or being pushed across by bridges at Huy and elsewhere.

"The general direction of the German advance is by Waremme on Tirlemont. Two German cavalry divisions which crossed the Meuse some days ago have reached Gembloux, but have been driven back to Mont Arden by French cavalry supported by a mixed Belgian brigade.

"The German plans are still uncertain, but it is confidently believed that at least five army corps and two cavalry divisions will move against the French frontiers southwest, on a line between Brussels and Givet.

"The 1st French corps (5th Army) is now at Dinant, one cavalry and one infantry brigade opposing the group of German corps south of the Meuse. The 10th and 3d corps (5th Army) are on the line Rethel–Thuin south of the Sambre. The 18th corps is moving up on the left of the 10th and 3d.

"Six or seven French reserve divisions are intrenched on a line reaching from Dunkirk on the coast, through Cambrai and La Capelle to Hirson.

"The Belgian Army is intrenched on a line running northeast and southwest through Louvain."

His own instructions to his corps commanders were as follows:

"When our concentration is complete, it is intended that we should

operate on the left of the 5th French Army, the 18th corps being on our right. The French cavalry corps of three divisions will be on our left and in touch with the Belgians. As a preliminary to this, we shall take up an area north of the Sambre, and on Monday (August 24) the heads of the Allied columns should be on the line Mons–Givet, with the French cavalry corps on the outer flank.

"Should the Germans attack in the manner expected, we shall advance on the general line Mons–Dinant to meet it."

The principal error in the estimate was the under-estimate of the German forces. From Givet northward, the Germans were about to operate with nine active and at least four reserve corps (exclusive of those left in Belgium) in all **thirteen** instead of **seven** or **eight.** Between Givet and Metz, the IV and V German armies had **eleven** corps instead of **six** or **seven,** as estimated.

While General French was visiting General Joffre's headquarters, the 3d and 10th corps of the 5th French Army were marching rapidly northward and reached the vicinity of the Sambre River on the 19th. The two divisions of the 19th corps joined in southern Belgium and were attached as third divisions to the 3d and 10th corps, the 18th corps from Toul was beginning to entrain for Maubeuge to form on the left. From the three reserve divisions south of Hirson, one was ordered to pass in rear of the army to relieve the 1st corps on the Meuse, the other two were ordered up to form on the left of the 18th corps when it arrived. The 1st cavalry corps crossed the Sambre River on the 17th, west of Namur, and its advance guard reached Gembloux. It was to get in touch with the Belgian Army and cover the advance of the 5th French Army across the Sambre River.

Advance of the German Armies.—On the 17th of August, immediately after the fall of the last forts of Liege, the I and II German armies which had been crossing the Meuse above and below that fortress, got into position for the forward movement. On the right was the I Army, General Kluck, composed of the II, IV, III and IX corps in the first line followed by the III and IV reserve corps and the landwehr brigades. Covering the right flank of the army was a division of the II cavalry corps. On the left was the II Army, General Bulow, with the VII, X reserve, X and Guard corps in the front line followed by the Guard reserve corps and a division of the VII reserve corps; the other division of the VII reserve corps remained at Liege. The front of the II Army was covered by the other two divisions of the II cavalry corps. The order contemplated a wheel on a wide front about the fortress of Namur changing front from west to south. The I Army if possible

to turn the northern flank of the Belgian Army and cut it off from Antwerp.

On the 18th the movement began; the center of the I Army moved on Louvain and Brussels and the center of the II Army on Gembloux. That night the Belgian Army retired to Antwerp, to which the government had retired, offering only rear guard actions; on the 20th, the center of the I Army was at Brussels and that of the II at Gembloux.

While the I and II armies were moving north of the Meuse, the III Army composed of the XI, XII, XII reserve and XIX corps, General Hausen, was moving from northern Luxemburg westward to reach the Meuse between Namur and Givet to cooperate with the II Army.

On the 20th, Bulow was informed by German G. H. Q. that there were two and possibly three French corps along the Meuse between Namur and Givet, two corps on the Sambre between Namur and Charleroi, and possibly three moving north toward the Sambre still further west and more than a day's march from the river. The I, II and III armies were ordered to engage these forces, and at the same time begin the siege of Namur. The location of the British Army was not known but it was advisable to assume that it might land at Boulogne. As the II cavalry corps would be needed on the flank of the I Army, the I cavalry corps was relieved from the front of the III Army and ordered to join the II Army.

On the 21st, the wheel of the I and II armies was continued and the III Army marched toward the Meuse. The I Army left the corps of its second line to protect its communications from the Belgian Army. The left wing of the II Army reached the Sambre between Namur and Charleroi, while the right wing reached the line Nivelles–Charleroi. The leading corps of the I Army extended this line through Hal on the Brussels–Mons railway.

Battle of Charleroi.—It was not the intention of General Bulow to cross the Sambre until the I Army and his right wing were further advanced; therefore, for the 22d he simply ordered his right wing to advance to the Charleroi–Mons road. In front of this wing was the 1st French cavalry corps which had retired westward as the Germans advanced. About noon, however, Bulow learned that the Sambre between Namur and Charleroi was only lightly held and some of the crossings were already in possession of his troops. He therefore decided to advance the Guard and X corps of his left wing to the high ground south of the river and secure it before the French occupied it in force.

Opp. page 20

German Operation Order of August 20.

"I and II armies will form on the line reached August 20 covered by protection against Antwerp. The attack of Namur will be begun as soon as possible.

The details of the impending attack on the enemy west of Namur in cooperation with the attack of the III Army on the line of the Meuse between Namur and Givet must be left to the two commanders (Bulow and Hausen).

In the development of future operations a strong force of cavalry west of the Meuse is essential. The I cavalry corps will therefore retire from the front of the III and IV armies and begin its march around the north of Namur. When it reaches the north bank of the Meuse it will come under the orders of the commander of the II Army."

At this time the I and II armies were under the command of General Bulow. General Hausen commanded the III Army.

South of the river General Lanrezac had not yet received all the troops that had been assigned to his army but was preparing for his advance. On the 22d only the 3d and 10th corps were on the Namur–Charleroi front and a brigade of the 3d corps had been sent to assist the cavalry north of the Sambre. The corps were not intrenched as they were expecting to advance. The attack of the two German corps was unexpected, and that night the Germans had secured a strong position south of the Sambre.

The battle was renewed on the 23d, Bulow's object being to drive the French back and form a junction with the III German Army whose right was to cross the river that day just south of Namur. Lanrezac's object was to drive the Germans back across the Sambre. The battle extended itself toward the west where the X reserve corps engaged the 18th corps which had just arrived. On Lanrezac's right was the 1st corps which had been guarding the Meuse and which prevented the right of the III Army from crossing the river; its division around Dinant had been relieved the day before by a reserve division from Hirson, and in the morning the commander of the 1st corps was concentrating his corps with a view of making a counter-attack on the left flank of the Guard early in the afternoon. Just before this attack culminated, General Lanrezac was informed that the center of the III German Army had forced the Meuse at Dinant in his rear and he was obliged to detach the 1st corps to this new danger spot. About the same time, he learned that the British Army on his left had been attacked about noon by the I German Army and was retreating southward. To protect his flanks he ordered his army to withdraw on the 24th to the line Maubeuge–Givet.

The retreat of the 5th French Army began on the 24th did not stop on the 25th as the left of the III Army crossed the Meuse south of Givet. The Army continued its retreat therefore across the Belgian frontier.

During the 23d, the VII corps fought its way southward from Binche to the Sambre opposed by the 1st French cavalry corps assisted by a brigade of infantry. That night the French cavalry corps crossed the river and the next day bivouacked at Avesnes south of Maubeuge. The VII corps now reinforced by the I cavalry corps crossed the river and invested Maubeuge on the east. In its front were the two reserve divisions from Hirson which joined the 5th Army that day.

In the battle of Charleroi, the Germans claim to have captured 4,000 men and 35 guns. The other casualties were about equal, 11,000 on each side.

During the battle of Charleroi, the Guard reserve and XI corps were conducting the siege of Namur assisted by the heavy artillery brought from Liege. By the morning of the 23d, the forts were so badly shattered that it was decided to withdraw the 4th Belgian division that morning. These troops passed to the rear through the 5th French Army and were railed to Antwerp.

Battle of Mons.—The British Army on leaving the French ports was detrained in the vicinity of Maubeuge and on August 22d deployed along the position which had been selected for it. The line ran along the canal from Conde due east to a village three miles east of Mons; from this village it ran southward at right angles to the Sambre River where it connected with the 5th French Army. The canal line was held by the 2d corps, General Smith-Dorrien, while the 1st corps, General Haig, was echeloned along the line that ran toward the Sambre. Four brigades of cavalry were on the left, one on the right, cavalry patrols were out to the front. The only evidence of the enemy was a column of the VII German corps of the II German Army, which compelled the cavalry on the right to evacuate Binche, and cavalry patrols encountered by the British cavalry five miles north of Mons.

The British commander knew that Brussels had been occupied by the Germans on the 20th and that they would probably make their first appearance at Mons where the main road from Brussels intersected his front. This particular part of the line formed a salient, as the canal makes a semi-circle to the northward around Mons. One division of the 2d corps was assigned to the salient and the canal on its left; the other division was along the canal on its left. The left flank of the British line at Conde was insecure, but General French was expecting the 1st French cavalry corps, which was then on his right, to take post on his left when relieved by the 18th corps. During the day, August 22, he learned of the German attack on the 5th French Army and was requested by the commander of that army to assist him next day by attacking in the direction of Binche, in view of the German forces probably moving towards his own front, he was unable to comply with the request.

On the night of the 22d, the commander of the I German Army was still in the dark as to the location of the British Army which it was thought might have been landed at Boulogne and Calais and would advance via Lille. The II cavalry corps was advancing toward Tournai to clear up this point. He was however under orders to keep in touch with the left of the II Army and invest Maubeuge on the north and northwest. His orders for the 23d were for the

IX corps to march through and east of Mons on Maubeuge; the III corps on its left was to cross the canal west of Mons; the IV corps was to halt on the road Ath–Conde five miles north of the canal; the II corps, a day's march in rear, was to reach Ath; the IV reserve corps was to remain at Brussels.

In the battle of Mons therefore the German attack fell on the right wing and center of the 2d British corps beginning at the salient at Mons about 1 p. m. The British made a stubborn resistance, but in the course of the afternoon evacuated the salient and canal line in front of the IX and III corps and fell back to position some miles to the rear. The IV corps becoming aware of the battle continued its march beyond its halting place and reached the canal between Conde and the III corps about dark. Here the British also retired to the new line.

During the day General French, learning of the withdrawal of the 2d corps, selected a line extending westward from the fortress of Maubeuge, about twelve miles south of the canal, upon which to fall back if necessary. During the night he was informed from French headquarters of the proposed retreat of the 5th French Army and that probably three German corps and two cavalry divisions were moving down on the British Army. Under the circumstances, it was necessary to withdraw before his flanks were endangered; the army was therefore directed to retreat to the new line on the following day.

Mons–Charleroi was the second of the great battles on the frontier.

The battle of Mons convinced General Kluck that the main British force was in his front. His orders for the 24th were for the II cavalry corps to move southward to the Scheldt River midway between Conde and Cambrai to cut off the retreat of that army to the west while the IV, III and IX corps endeavored to drive it eastward on Maubeuge. The II and IV reserve corps, then in rear, were to start at dawn, the former marching to Conde, the latter from Brussels in the same direction.

Kluck's plan for the 24th was defeated by General French's decision to withdraw that day to the Valenciennes–Maubeuge road. The German IV and III corps attacked the 2d British corps early in the morning, but with assistance sent by the 1st corps and a counter-attack of that corps the engagement was broken off and the 2d corps retired to new position some five miles further south. The 1st corps now broke off the engagement and retired to the Valenciennes–Maubeuge road where it was joined by the 2d corps. At Valenci-

ennes there was a French Territorial division about to retire to Cambrai.

On the night of the 24th, the British and 5th French armies were on the line Valenciennes–Maubeuge–Givet.

As the 5th French Army was under orders to continue to retreat, on the afternoon of the 24th, General French ordered his army to retreat on the 25th as far as the Cambrai–Le Cateau road, 15 miles to the south, where the 4th division of the 3d corps of the Expeditionary Force which had just arrived from England was detrained that day.

On the 25th therefore the retreat was continued. The 2d corps, covered by the cavalry, retired through the open country in its rear and reached the new line in the evening. The 4th division of the 3rd corps advanced to Solesmes to cover its flank and then took position on its left and rear. The French Territorial division retired to Cambrai. On account of the Mormal forest in its rear, the 1st corps was obliged to retreat between the Mormal forest and Maubeuge and recross the Sambre River at Landrecies. It had a long march to make and its leading brigade reached Landrecies after dark. The last brigade was far in rear. One division was attacked on the eastern edge of the Mormal forest after dark by troops of the III German corps and the brigade at Landrecies by troops of the IV German corps.

General Kluck's plan for the 25th was made on the assumption that the British would await an attack on the Valenciennes–Maubeuge road. When he found that the British Army was retreating, his movements were hampered by the order of General Bulow to invest the west front of Maubeuge. The IX corps therefore remained on the north and west of Maubeuge, while the III corps moved through the Mormal forest to reach the Sambre River to the south of the fortress. The IV corps pursued the 2d British corps and reached Solesmes with the main body while one column moved to Landrecies. The II cavalry corps and the II corps reached a point midway between Conde and Cambrai to the right and rear of the IV corps. By his retreat this day, General French had escaped the encircling movement of the German cavalry.

On this day, the 5th French Army recrossed the Belgian frontier and was on the line Avesnes–Rocroi that night. In the fortress of Maubeuge the French left a garrison of 35,000 men, mostly Territorial troops. The 1st French cavalry corps began its march around the rear of the British Army to reach its left flank. The II German Army pursued the 5th French Army with its right corps east of Maubeuge.

Battle of Ardenne–Meuse.—It will be remembered that on August 15, as a part of his general plan, the French commander had directed that the 4th and 3d French armies be concentrated along the Belgian–Luxemburg–German frontier, from Givet south to the vicinity of Thionville, to advance into southern Belgium and Luxemburg to attack the German armies that were probably concentrating to invade that section. The concentration was completed on the 20th and the forward movement began on the 21st. The 4th Army between Mezieres and Dun consisted of a division of the 9th corps and the 11th, 12th, 17th, Colonial and 2d corps. The Moroccan division of the 9th corps had not yet joined. Above Mezieres and in reserve there were two reserve divisions and two cavalry divisions attached to the 4th Army. The 3d Army consisted of the 4th, 5th, and 6th corps, and the three reserve divisions forming a separate group called the Army of the Lorraine. At that time it was believed that the German force consisted of six or seven divisions with three cavalry divisions. It was later found that the German force consisted of the IV Army, VIII and XVIII active and VIII and XVIII reserve corps; and the V Army, the V, VI, XIII and XVI active and the V and VI reserve corps. The XVI reserve corps held the fortress of Metz and engaged one division.

On the 22d, the second day of the battle of Charleroi, the opposing forces marching north and west in southern Belgium and vicinity, came in contact with an extended front along which, because of the broken and wooded character of the Ardenne region of Belgium, the various corps fought almost independently at Paliseul, Bertrix, Neufchateau, Jamoigne, Tintigny and Arlon in Belgium; and Longwy and Audun le Roman in France. The following is the French review of the battle of Ardenne–Meuse.

"On August 21, our offensive in the center began with ten army corps. On August 22, it failed. The reasons for it are complex. There were in this affair individual and collective failures, imprudence committed under the fire of the enemy, divisions ill-engaged, rash deployments, a premature waste of men, and finally, inadequacy of certain of our troops and their leaders; both as regards the use of infantry and artillery. In consequence of these lapses, the enemy turning to account the difficult terrain, was able to secure the maximum of profit from the advantage which the superior number of his minor units gave him."

On the day following the battle all the French corps were withdrawn to the line from which they had advanced to be reorganized for a new advance. On the night of the 23d, however, the 5th French Army began its retreat and General Joffre did not deem it wise to renew the attack and run the risk of having the enemy

penetrate the interval between the 4th and 5th armies. The 4th and 3d armies began therefore to withdraw towards the Meuse.

The battle of Ardenne–Meuse was the third of the great battles on the frontier.

Thus far the French plans of invasion in Lorraine, in southern Belgium and on the Sambre, had all failed, and the three army groups had retired across the frontier. That some of the failures were due to bad tactical leadership is evident from the following circular from French headquarters August 24, 1914:

"It appears from information gleaned from the battles fought, that attacks are not executed with an intimate combination of infantry and artillery.

"Every complete operation is made up of a series of detailed actions whose object is to secure points of support. Whenever it is desired to capture a point of support it is necessary to prepare the attack with artillery, retaining the infantry and sending it forward to the assault only from such a distance that it is certain to reach its objective.

"Every time the infantry has been launched to the assault from too great a distance before the fire of the artillery has been felt, the infantry has fallen under the fire of machine guns and suffered losses which should have been avoided.

"The infantry seems ignorant of the necessity of organizing itself for a prolonged contest.

"Throwing at the outset into the line numerous and dense units exposes them immediately to the fire of the adversary, decimates their ranks, stops short their offensive and leaves them often to the mercy of counter-attack.

"It is by means of a line of skirmishers, sufficiently spaced and continually fed, that infantry supported by artillery, should conduct the combat, thus making it last until the moment when an assault may be judiciously ordered.

"German cavalry divisions are always preceded by some battalions transported in automobiles. Until now, their main bodies have never allowed ours to approach them. They move behind their infantry and launch small cavalry units (patrols and reconnoitering parties) who seek the support of their infantry as soon as approached; our cavalry pursues these elements and hurls itself against barriers solidly held. Our cavalry divisions must always have infantry supports to assist them and augment their offensive qualities."

Second Plan of General Joffre.—On August 24, General Joffre became convinced that his right was secure, as the armies of Generals Castelnau and Dubail had made a firm stand and expressed themselves able to hold their position. The central armies, the 3d of General Ruffey and the 4th of General Langle, had not been able to carry out their offensive, but there was no reason to believe that they would not be able to hold on a shorter line and eventually be

able to renew the offensive under more favorable conditions. The weak point was the left group which in its present condition was liable to have both flanks turned. It was necessary to close the gap between the 4th and 5th armies and protect the left flank of the British Army. It was for the latter purpose that, at the request of the British commander, General Joffre ordered the 1st French cavalry corps to that flank.

On the night of August 25 General Joffre with a better knowledge of the position and composition of the various German armies than he had on August 15, issued instructions of which the following is an extract:

"The proposed offensive maneuver having been found impossible of execution, future operations will be regulated in a manner to reconstitute on our left by the junction of the 4th, 5th and British armies and new forces drawn from the eastern region, a mass capable of resuming the offensive. The other armies will in the meantime resist all efforts of the enemy.

"In their retrograde movements the 3d, 4th and 5th armies will each observe the movements of its neighboring armies and keep in touch with them. The movement will be covered by rear guards left on favorable sites so as to utilize all the obstacles to arrest or at least retard the march of the enemy by short and fierce counter-attacks in which the artillery will play the main part."

The line along which General Joffre hoped to check the German advance was the line of the Somme River from its mouth eastward to La Fere on the Oise, thence in an almost straight line to Verdun. The Territorial divisions with two reserve divisions under General d'Amade were to form the barrier along the Somme from Amiens to its mouth. The 6th Army was to be formed along the Somme between Amiens and Peronne, with the British Army on its right connecting with the 5th French Army. The 5th, 4th and 3d French armies would extend the line to Verdun.

With the 6th, British and 5th armies, it was hoped to renew the offensive and turn the flank of the German line as was attempted later in the battle of the Marne.

When these instructions were issued, the situation as it probably appeared at the French G. H. Q. was as follows:

On the morning of the 25th the British Army would be occupying the position that had been prepared for it along the Cambrai–Le Cateau road with five divisions. At Cambrai there would be a French Territorial division and at Arras the 61st and 62d reserve divisions, under orders to march on Cambrai. The 1st French cavalry corps was en route to Cambrai to reach the left flank of the line. The line Cambrai–Le Cateau ought therefore to be held for

some days by the British and d'Amade's force and the 5th Army in line to the east, while the 6th Army was being organized.

If this line could be held a few days, the entire line could fall back slowly to a new position running through St. Quentin which would be occupied by the left of the 5th French Army while the right held the line east of the Oise connecting with the 4th French Army. The 4th and 3d French armies would shorten their front by retiring to the line Rethel–Verdun and the 3d Army could then give up a corps and two of its reserve divisions to form with the 7th corps from Belfort, the new 6th Army, for which other reserve divisions could be found elsewhere. When the 6th Army was formed, it with the British Army and left wing of the 5th French Army would form "a mass capable of resuming the offensive."

The success of the plan depended on the ability of the British Army with the assistance of such French reserves and Territorials as were on its left, to delay the advance of the I German Army, in order to bring from other fronts the divisions designed for the new 6th Army.

Unfortunately there was not on the morning of the 26th, between Cambrai and Le Cateau, a force strong enough to retard the I German Army as planned. As previously stated, the 2d British corps reached this position in the evening of the 25th, but because of its circuitous march the leading brigade of the 1st corps had only reached Landrecies, a town eight miles east of Le Cateau, and the remainder of the corps was still between Landrecies and Maubeuge. The three divisions of the 2d and 3d corps along the Cambrai–Le Cateau road were therefore separated from the 1st corps and from the Territorial division at Cambrai by about the same distance, eight miles. At Cambrai was only the Territorial division; the 61st and 62d reserve divisions and the 1st French cavalry corps could not reach it before evening.

While General Joffre desired a delaying action fought by the British Army this day, the situation on the night of the 25th convinced General French that it was not practicable, as his army was not united and the French cavalry corps which was to protect his left was still on his right south of Maubeuge. He therefore directed his two corps commanders to retreat still farther south on the 26th. General French realized that he had in his command the greater part of the Regular British Army, and he was unwilling to risk a battle under such unfavorable conditions.

On the 26th, therefore, the 1st corps continued its retreat in the direction of Guise on the Oise River, but the commander of the 2d

corps instead of retreating sent word that it was necessary for him to remain in position that day to rest his troops. General French was at his headquarters at St. Quentin and did not know of this decision until the morning of the 26th.

Battle of Le Cateau.—From his orders given the night of August 25, it is evident that General Kluck was not expecting a battle on the 26th.

"The Army Order issued at 11:50 p. m. on the 25th announced that the First Army would be called on to do another long march in pursuit of the retreating enemy. The II corps was to march through Cambrai towards Bapaume; the IV reserve corps, making an early start, was to march to Cattenieres; the IV corps was to move from Solesmes and Landrecies to Vandhuille; the III corps was allotted the Landrecies–Le Cateau road and was to march as far as Maretz; the IX corps was to protect the communications of the Army from the west and southwest fronts of Maubeuge and any remainder of the corps was to follow the III corps through Landrecies. * * * Representatives of the different corps would receive orders about noon at Solesmes."—"March on Paris in 1914."

Cattenieres is southwest of Cambrai just south of the Cambrai–Le Cateau road; Vandhuille is ten miles due south of Cambrai; and Maretz is about seven miles southwest of Le Cateau.

From the decision of General Smith-Dorrien, commanding the 2d corps, to remain in position on the 26th, and the marching order of the I Army there resulted the battle of Le Cateau.

The British occupied an eight-mile front extending from the Roman road west of Le Cateau via Caudry to Haucourt. The cavalry brigades attached to it were on the left and the Army reserve brigade on the right. The line was only slightly intrenched.

The attack began on the left where the II German cavalry corps moving southward east of Cambrai encountered the British cavalry and the 4th division of the 2d corps. The 2d corps was farther to the east and was attacked by the IV corps. The attack was opened in the course of the morning by the German artillery and the fire was kept up for several hours; the infantry began its attack about noon. It is probable that some of the artillery of the III and IX corps took part in the attack as the British artillery was unable to adequately reply.

About noon General Kluck arrived on the field and ordered the III and IV reserve corps to hasten their marches to turn the flanks of the British line. The battle was decided probably by the arrival of the head of the III corps at Le Cateau early in the afternoon when the right of the British line was turned and the order for retreat was given. The withdrawal was executed with difficulty as some

of the battalions remained in line after others had withdrawn and suffered severe loss. When at last all the troops were under way, they marched southwestward late in the night. Order could not be restored until two days later when the troops were behind the Oise. The prompt withdrawal probably saved a greater disaster, as a further delay would have enabled the Germans to employ the full strength of the III and IV reserve corps on the flanks of the position. The losses however were severe and the British Army was unable to give General Joffre any further assistance until the losses were replaced.

General French says:

"It was during Friday the 28th that I fully realized the heavy losses we had incurred. Since Sunday the 23d this had reached in officers and men, the total of upwards of 15,000. The deficiency in armament and equipment was equally serious. Roughly some eighty guns, and a large proportion of our machine guns, besides innumerable articles of necessary equipment, and a large quantity of transport had fallen into the enemy's hands."—1914.

Most of these losses had fallen on the 2d corps. The 1st corps which took no part in the battle retreated southward toward Guise; on the 27th and 28th it continued its retreat through St. Quentin to La Fere.

Toward the close of the battle of Le Cateau, the 1st French cavalry corps by a forced march reached Cambrai and protected the left flank of the British in their retreat. On the following days it retreated toward Peronne to join the 6th French Army.

Besides being a critical day for the British Army, August 26 was a critical day for the Germans, as the decisions made that day by German G. H. Q. had an important bearing on the later operations of the campaign. That day it was decided to withdraw two corps and a cavalry division from the western armies and send them to the Russian front, and also to relieve Kluck from the orders of Bulow. The two corps relieved were the Guard reserve and the XI corps which had conducted the siege of Namur and were now in reserve in the II and III armies. The cavalry division was taken from the I cavalry corps.

According to the plan of General Joffre, the 5th French Army retreated in a southwesterly direction keeping in touch with the British Army and closing in toward the west. The gap thus made between the 5th and 4th armies was thinly held by cavalry but was to be closed by the retreat of the 4th Army. The II German Army pursued in the same direction, but the commander of the III Army, who was confronted by the choice of keeping in touch with the II

Army or of gaining touch with the IV Army, decided on the latter and on the 26th a gap was opened between the II and III armies. The II Army reduced to three and a half corps, as one division of the VII corps was still at Maubeuge, was no longer supported on its left. On the night of the 26th Kluck informed Bulow that he would march in a southwesterly direction toward the bend of the Somme to prevent the British from retreating westward. Not wishing to lose contact with both adjoining armies, Bulow decided to keep in touch with Kluck which compelled him to order the I cavalry corps with one division of the VII corps and X reserve corps down the west side of the Sambre-Oise canal while the X and Guard corps remained on the east side. Due to Kluck's decision, the II Army was now pursuing both the British and 5th French armies while in front of Kluck were only French reserves and Territorials with the 1st French cavalry corps.

The Battle of St. Quentin–Guise.—On the 26th of August, General Joffre visited General French at his headquarters at St. Quentin and promised him that the 5th French Army which was about to reach the line of the Oise between Guise and Hirson would be halted to make a counter-attack to take off the pressure on the British Army. On the 27th, he notified General Lanrezac to prepare for battle and the 28th was spent in moving the troops into position.

On the 27th, the II German Army reached the line of the Oise and on the 28th the cavalry corps, the division of the VII corps and the X reserve corps pushed on through St. Quentin in pursuit of the British, while the X and Guard Corps attempted to cross the Oise at Guise and to the east. It was now discovered that the 5th French Army had halted and the X and Guard corps were stopped at the Oise after the X corps succeeded in gaining a bridgehead near Guise.

Lanrezac's plan for the 29th was for the left wing of his army extending from Guise to La Fere to face in the direction of St. Quentin, cross the Oise and capture that town; in the meantime, the right wing was to remain on the defensive. The chances of success were good, as there was a wide gap between the X and X reserve corps. The battle of the 29th was mainly an offensive one on the part of the French. The French troops crossed the Oise but were eventually compelled to retire. The gap between the X and X reserve corps was filled by the timely arrival of the division of the VII corps left at Maubeuge. During the night of the 29th, one division of the IX corps of the I Army reached St. Quentin at the request of Bulow and on the morning of the 30th the Germans attacked but also without success. Bulow had called on the III

Army to attack the right of the 5th Army but its commander reported that it was fighting near Mezieres. In the afternoon, the 5th French Army broke off the battle as General Joffre had decided to retreat still further south as an offensive from the Somme front was no longer practicable.

In the battle of the 29th, the X and Guard corps made a desperate attack on the French right wing to relieve the pressure on the German right wing. In this they were successful but the losses in these corps wery heavy and their attack was repulsed.

Von Kluck's March on Paris.—On the 27th and 28th, the I Army marched from the front Cambrai–Le Cateau in a southwesterly direction toward the front Albert–Ham; three of the corps with the cavalry reached the bend of the Oise on the latter day. In these two days they had encountered mainly French reserves marching from Bapaume to Peronne which they drove westward. The 1st French cavalry corps retired in their front across the Somme. There had not been sufficient time to form the 6th French Army as the 7th corps had just detrained at Amiens and two reserve divisions from the Verdun front were just arriving in the area northwest of Paris.

Kluck says the situation was summed up at his headquarters on the night of the 28th as follows:

"The left wing of the main French forces is retreating in a southerly direction in front of the victorious Second and Third Armies. It appears to be of decisive importance to find the flank of this force, whether retreating or in position, force it away from Paris and outflank it. Compared with this new objective the attempt to force the British Army away from the coast is of minor importance.

"At mid-day on the 28th, on the basis of this appreciation, it was proposed to the Commander of the Second Army that a wheel inwards should be made by the two armies toward the Oise, the First Army moving on Compiegne–Noyon". March on Paris in 1914.

Evidently since the battle of Mons, General Kluck had been maneuvering under the hypothesis that the British Army would attempt to retire westward. Since his right wing encountered only French forces after the battle of Le Cateau, he now knew his hypothesis was wrong. He was undoubtedly right in his conclusion that his army should now wheel to the east against the flank of the 5th French Army, fortunately he was diverted from it by instructions received from the German G. H. Q. that evening. He gives the substance as follows:

"It expected renewed opposition by the French and British forces on the Aisne, with their left wing advanced abreast of a line St. Quentin–La Fere–Laon, also later on the Marne with the left flank resting on Paris. A concentration of fresh forces on the lower

German Operation Order of August 26.

"The French — at least the northern and middle group — are in full retreat in a southwesterly and westerly direction, that is, toward Paris. They will undoubtedly attempt to offer strong resistance in new positions in their retreat. All information received from France indicates that the fighting is to gain time, and that the object is to keep as many German forces on the west front as possible in order to lighten the task of the Russians in the east.

The I Army with the II cavalry corps will march west of the Oise towards the lower Seine. It must be prepared to assist the II Army in its battles. In addition its tasks are to act as a flank guard of the armies and to prevent the organization of new hostile units in its operation zone.

The II Army with the I cavalry corps under its orders will cross the line La Fere–Laon moving on Paris. It will also invest and capture Maubeuge and later with the III Army Laon. The I cavalry corps will reconnoiter on the front of the II and III armies.

The III Army will cross the line Laon–Guignicourt in the direction of Chateau Thierry.

The IV Army will advance through Reims on Epernay.

The IV cavalry corps assigned to the V Army will also reconnoiter on the front of the IV Army. The VI corps is transferred to the V Army.

The V Army will advance across the line Chalons–Vitry le Francois. By means of echeloning to the left and rear it must protect the flank of the armies until the VI Army has crossed the Meuse. Verdun is to be invested.

The VI Army, the VII Army and III cavalry corps with flank resting on Metz are to prevent the advance of the enemy into Lorraine and upper Alsace. Should the enemy retire, the VI Army with the III cavalry corps will cross the Moselle between Toul and Epinal and move in the general direction of Neufchateau. In that case it will protect the flank of the armies.

The VII Army will for the time being be under the orders of the VI Army. Should the latter cross the Moselle, the VII Army will be independent and will prevent the enemy from advancing between Epinal and Switzerland."

This order assumed a more rapid and unopposed advance of the central group (III, IV and V armies) than was found possible during the 28th, 29th and 30th of August.

Seine was also considered possible. An immediate advance of the German Armies on Paris was to prevent the French Army getting rest and stop the formation of fresh concentrations. The First Army, with the II cavalry corps under its orders, will march west of the Oise toward the lower Seine. It will be responsible for the protection of the right flank of the Armies, and will take steps to prevent any new enemy concentration in its zone of operations.

"The Second Army, with the I cavalry corps under its orders, will advance across the line Laon–La Fere toward Paris. It will invest and capture Maubeuge and later La Fere, as also Laon in co-operation with the Third Army.

"All the Armies will mutually co-operate with one another and support each other during the fighting. The strong resistance which is expected on the Aisne and later on the Marne may necessitate a wheel inwards of the Armies from a southwesterly to a southerly direction."

Bulow says these same instructions were brought to him by a Staff officer and covered the operations of the seven armies.

Kluck rightly says:

"These directions implied that the I Army would continue its advance in a southwesterly direction for the time being. They did not exclude the possibility of a wheel inward toward the south, such as the Army Commander contemplated, should the general situation make it appear necessary.

"The directions quoted above did not admit of any slowing down of the operations of the First Army and a good rest could not therefore be given the long-suffering troops."

On the 29th, while the battle of St. Quentin was in progress, the I Army crossed the Somme and marched in the direction of the lower Seine. On that day one of its corps engaged the 7th French corps near the Somme and it with other scattered detachments in this area retreated toward Montdidier where General Manoury, who was in command of the 6th French Army, had established his headquarters. The I Army continued its march until it reached the front Amiens–Roye which it reached on the 30th, the second and last day of the battle of St. Quentin–Guise.

About 6 p. m. the following message was received by wireless from the II Army:

"Enemy decisively defeated to-day; strong forces retiring on La Fere. The British who were barring the Oise southwest of La Fere are also retreating in a southerly, and some in a south-easterly direction. The enemy in front of the Third and Fourth Armies is also in retreat. The Second Army will rest on the 31st August except that the bombardment of the forts of La Fere will be carried on."

And a half hour later:

"To gain full advantage of the victory, a wheel inwards of the First Army pivoted on Chauny towards the line La Fere–Laon is urgently desired."

As a matter of fact, the battle of St. Quentin–Guise might rather be called a French victory in that it stopped the advance of the II German Army for three days and inflicted severe losses on the X and Guard corps who were obliged to sacrifice themselves to prevent a real defeat. It is true that the French Army evacuated the field on the 30th and retired to the Serre River in preparation for a further retreat.

Kluck promptly replied:

"I Army has driven the enemy across the Avre (near Roye) with its right wing; will advance to-morrow to the Oise between Compiegne and Chauny."

Later that night, the general instructions from the German G. H. Q. rescinded the orders of the 28th and directed the I and II armies to move in a more southerly direction than before with the left of the II Army directed on Reims. After receiving the new instructions Kluck reported:

"The I Army has wheeled round toward the Oise and will advance to exploit the success of the II Army."

On the following morning he received the following:

"The movement begun by the I Army is in accordance with the wishes of the Supreme Command."

Retreat to the Marne.—On the 30th the British Army which had been reorganized along the Oise, retreated to the Aisne, and the 5th French Army began its retreat from the Serre to the Aisne the following day. On the latter day the left wing of the I German Army consisting of the II cavalry corps, the III corps and the IX corps, crossed the Oise between the mouth of the Aisne and La Fere. The I cavalry corps of the II Army had crossed the preceding day and was en route for Soissons. There was therefore a cavalry corps on each flank. The IV and II corps with the IV reserve, a day's march on the flank and rear, were still west of the Oise.

On September 1, the British and 5th French armies continued their retreat. As the German cavalry corps was at Soissons and on the Soissons–Chateau Thierry road, the French were obliged to retreat to the east of it.

On the same day, the II German Army took up the pursuit; the left wing of the I Army crossed the Aisne and the IV and II corps crossed the Oise at and south of Compiegne. There was some minor actions with British rear guards at Nery and Villers-Cotterets that day but as the main columns of the British Army were farther south attempts to turn its flank failed.

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German Instructions August 30.

"III Army has wheeled south towards the Aisne, attacks on the line Rethel–Semoy and will pursue in a southerly direction.

The combined movements of the I and II armies meet with the views of the Supreme Command.

The left flank of the II Army will move in the direction of Reims to cooperate with the III Army."

The march on Paris ordered on the 28th was changed because of the resistance met by the central group (III, IV and V armies).

Operations of the 3d and 4th French Armies, August 25–September 1.—In accordance with General Joffre's second plan, after their battle on the Belgian frontier, the 3d and 4th French armies fell back slowly to the Meuse pursued by the IV and V German armies. On the Meuse the German armies were joined by the III German Army which did not join in the pursuit of the 5th French Army but took the road from southern Belgium to Rethel on the Aisne River. A delaying action was fought south and west of Mezieres by the 4th French Army with the III and IV German armies on August 28 and the French armies then fell back on the line Rethel–Verdun. At this point, the left wing of the 4th French Army consisting of the 9th and 11th corps, two reserve divisions and a cavalry division were formed into a separate command under General Foch who had been in command of the 20th corps of the 2d Army. When the 3d Army reached the Meuse one of the three divisions of the 6th corps was also sent to him. The 4th corps of the 3d Army was entrained for Paris. As the 5th French Army fell back from the Aisne, the armies to the east fell back with it. In order to maintain his position on the Aisne until the 5th Army reached it, General Foch fought a delaying action at Rethel with the III German Army.

Third Plan of General Joffre.—After the battles of Le Cateau and St. Quentin–Guise, it became evident that a new plan must be made based on an offensive still further to the rear. This plan was given in a new set of instructions issued September 1.

1. "Notwithstanding the tactical successes of the 3d, 4th and 5th armies secured in the region of the Meuse and Guise, the turning movement effected by the enemy around the left flank of the 5th Army compels our whole to pivot around our right.
2. "The movement to the rear may cause the armies to retire in a general direction south for some time.

   "The 5th Army, forming the marching wing, must, under no circumstances allow the enemy to attack its left; the other armies less pressed in the execution of their movements may halt, face about and seize every favorable occasion for inflicting a check.

   "The commanders of the armies will so conduct operations as not to expose the flanks of the neighboring armies, remaining in constant liaison with them and sending them constantly all the information they may secure.
3. "In the zone of the 4th Army the detachment Foch will be in constant touch with the 5th Army. The interval between this detachment and the main body of the 4th Army will be guarded by the 7th and 9th cavalry divisions taken from the 4th Army and supported by detachments of infantry furnished by that army.

"The 3d Army will effect its movement under the protection of the heights of the Meuse. The Verdun–Toul fortified curtain held by four reserve divisions.

4. "The limit of the retrograde movement may be assumed to be when the armies will be in the positions given below, without however assuming that this limit will be actually attained.
   (a) A cavalry corps of new formation in the rear of the Seine south of Bray (south of Provins).
   (b) The 5th Army in rear of the Seine to the south of Nogent-sur-Seine.
   (c) The 4th Army, detachment Foch, in rear of the Aube to the south of Arcis-sur-Aube; the main body in rear of the Ornain to the south of Vitry.
   (d) The 3d Army to the south of Bar-la-Duc. The 3d Army will at this time be reinforced by the reserve divisions who will abandon the heights of the Meuse to engage in the offensive movement.

   If circumstances permit, fractions of the 1st and 2d armies will be called at an opportune time to participate in the offensive.

   Finally, the mobile troops of the intrenched camp of Paris may also be able to take part in the general action."

These instructions were followed by a note the next day explaining the purpose of the French commander-in-chief.

The general plan of operations aims to secure the following objects:

(a) "To relieve the armies of the pressure of the enemy and enable them to reorganize and intrench themselves in the zone where they find themselves at the end of the retreat.
(b) "To establish our entire force on a general line marked by Pont-sur-Yonne–Nogent-sur-Seine–Arcis-sur-Brienne le Cateau–Joinville, on which they can be recruited by replacement troops from the depots.
(c) "To reinforce the left by two corps drawn from the armies of Nancy (2d) and Epinal (1st).
(d) "At this moment pass to the offensive on the whole front.
(e) "Protect our left wing with all the disposable cavalry between Montereau and Melun (on the Seine south of Paris).
(f) "Request the British Army to participate in the maneuver.
   1. Holding the Seine from Melun to Juvisy (on the left of the cavalry).
   2. Debouching on this front when the 6th Army begins to attack (just south of the Marne).
(g) "Simultaneously the garrison of Paris will act in the direction of Meaux (north of the Seine).

Under this plan the Allied armies were to retreat night and day if necessary until they were in contact with each other from Paris eastward. The 5th French Army was to retreat in a southwesterly

direction to close the gap between it and the British Army and the detachment of Foch in the same direction in contact with the 5th Army.

In view of the possible evacuation of Paris, the government was moved to Bordeaux September 2. The defense of Paris was left to its military governor, General Gallieni, who had at his command as a mobile force, four Territorial divisions and an Algierian division. The two reserve divisions, 61st and 62d, who had been operating in the triangle Arras–Cambrai–Amiens were en route to Paris to cover the north front.

As will be seen later, the French and British armies did not retire as far as the line selected as the opportunity for an offensive occurred sooner than expected. The 6th French Army did not cross the Marne and was united with the mobile garrison of Paris; the British Army did not reach the Seine; only a part of the 5th French Army crossed the Seine at Nogent; the detachment Foch did not reach the Aube but halted midway between the Marne and Aube; the 4th Army halted on the line Vitry le Francois–Revigny and the 3d Army on a line running from Revigny northeast to the Meuse.

On the night of September 1, the entire I German Army was south of the Oise and Aisne rivers except the IV reserve corps which was to cross the Oise at Creil the next day. On the night of the 1st, General Kluck still hoped to strike the British Army between the Oise and Ourcq rivers before it crossed the Marne. His orders were therefore for his corps to advance south-westward on the 2d against the British Army. The IX corps on his left was to move down the valley of the Ourcq. On the morning of the 2d however he learned that the British had escaped and were crossing the Marne; the only troops encountered were French troops of the 6th Army retreating through Senlis on Paris.

It was probably about noon that he received the following message possibly from the air service and possibly from the I cavalry corps of the II Army which was at and south of Soissons:

"Strong enemy columns in retreat, about 11 a. m., from Braine (on the Aisne) through Fere en Tardenois (on the Ourcq) on Chateau Thierry (on the Marne) and east of it. West of Fere en Tardenois large bivouacs still occupied at 11 a. m."

The troops seen belonged to two reserve divisions that formed the flank column of the 5th French Army retreating to the Marne which they were to cross before daylight on the 3d just east of Chateau Thierry.

General Kluck now thought he saw an opportunity of striking the 5th French Army in flank.

"A chance of dealing a decisive blow against the British Army was now no longer to be hoped for, and it was decided to move two corps on the left wing, the III and IX, in the general direction of Chateau Thierry against the flank of the French retreating on Chateau Thierry–Dormans in front of the Second Army.

"In co-operation with the Second Army it might be possible to damage the French western flank very considerably. The First Army by its deep formation was in a position both to cover the flank and rear of such an attack and also hold in check the garrison of Paris and the British.

"In the Army orders issued at 1:15 and 2:00 p. m. from Compiegne, the corps were kept well informed of the current events, and the latter stated that the II Army was to cross the Aisne that day with its right flank moving through Soissons, and that the IX corps would incline towards Chateau Thierry in order to take the retreating enemy in flank; the III corps would also make for Chateau Thierry and advance as far as possible."

The II and IV reserve corps were to continue operations against the French around Senlis, and the IV reserve, II and IV corps were to reach a front between the Oise and Ourcq running from south of Senlis to the junction of the Ourcq and Marne. The II cavalry corps was to reconnoiter toward Paris on both banks of the Oise. The IX corps referred to was the division that had remained with the I Army; the other division was a day's march in rear marching on Soissons.

On the night of the 2d, General Kluck drew up his orders for the operations of the 3d. They were simply a further development of his plan of the preceding afternoon. The area around Senlis was assigned to the IV reserve corps, the area midway between the Oise and Ourcq to the II corps, and the area on the Ourcq to the IV corps. The II cavalry corps as it returned from the reconnaissance was to rest in rear of the II corps.

"The IX corps will continue its attack against the flank of the enemy retreating in front of the Second Army through Fere en Tardenois on Chateau Thierry. The III corps will advance south of the IX corps in the direction of Chateau Thierry. Cavalry and artillery, machine guns, and infantry in carts will be sent on ahead to attack the enemy when he crosses the Marne.

"The III and IX corps will communicate with one another regarding the procedure of this attack. If contact is not gained with the enemy both of these corps will at once clear off to the westward off the road of advance of the right flank of the Second Army, VII corps, from Soissons–Chateau Thierry. The III corps will also reconnoitre towards the front La Ferte sous Jouarre–Chateau Thierry and report on river crossings."

The IV corps was to reconnoitre the Marne between Meaux and La Ferte.

"Air reconnaissance will be made by the III, IV and II corps across the Marne in the directions allotted to the corps."

Some time that night Kluck received the following wireless message from German G. H. Q.:

"The intention is to drive the French in a south-easterly direction from Paris. The First Army will follow in echelon behind the Second Army and will be responsible for the flank protection of the Armies."

When General Kluck received this message, he realized that the intent implied in the first sentence was at variance with the order in the second due to lack of correct information as to the exact positions of the corps of the two armies. His own army was in advance of the II Army and was the only army that could act on the flank of the French. If he halted until the II Army was in advance, the opportunity would be lost. His orders already issued for the 3d, were designed to carry out the intent of the German G. H. Q. and he decided to let them stand although they were not in compliance with the direct order. It does not appear however that he informed German G. H. Q. until two days later.

When the head of the leading division of the IX corps reached the vicinity of Chateau Thierry on the night of the 2d, it was probably already in possession of the I cavalry corps of the II Army which had been skirmishing all day with the French column reported to Kluck. This column crossed the Marne east of Chateau Thierry in the morning of the 3d, the 2d French cavalry corps, consisting of two divisions drawn from the 2d Army and one from the right of the 5th Army, took its place on the left of the 5th Army to cover that flank. All the corps of the 5th French Army crossed the Marne this day and retreated towards Nogent.

In his estimate of the situation that night given in his orders for the 4th Kluck states:

"The leading division of the IX corps has been in action on the high ground southeast of Chateau Thierry with the enemy retreating from Chezy on Montmirail. During the evening the enemy has extended his position through Courbon–Viffort towards Viels Maisons. There are signs of the beginning of great disorder among the retreating columns. The enemy reported on the march from Meaux to Coulommiers, apparently British, bivouacked this evening north of Coulommiers. The area between Coulommiers and the neighborhood of Viels Maisons reported by airmen to be free of the enemy. British cavalry was encountered this afternoon north of Le Ferte sous Jouarre. The Second Army has reached the Marne, with its right flank immediately east of Chateau Thierry. Tomorrow it is to advance with the right flank moving from Brasles through Confremaux and Corrobert and the I cavalry corps from Chateau Thierry."

The enemy referred to as extending from Courbon, east of Chateau Thierry–Montmirail road to Viels Maisons west of it was the French cavalry corps covering Montmirail and the retreating 5th Army. Corrobert the destination of the VII corps of the II Army is north-east of Montmirail. The orders for the I Army were:

"The First Army will continue its march across the Marne to-morrow so as to force the French Army eastwards. If the British offer opposition they are to be driven back.

"The IX corps, co-operating with the VII corps, will advance * * * towards Montmirail.

"The III corps will move * * * by way of Viels Maison.

"The IV corps will cross the Marne at La Ferte sous Jouarre and Saacy and advance in the general direction of Rebais.

"The II corps, protecting itself toward Paris, is to reach the Marne west of La Ferte sous Jouarre, and send its advance guards as far as the road Meaux–La Ferte sous Jouarre.

"The IV reserve corps in conjunction with the II corps will advance to the vicinity of Nanteuil la Haudouin and east of it. It will be responsible for protecting the flank and the communications of the Army against Paris, and be ready to take part in the movements of the Army on the 5th of September on the right flank. The brigade left behind at Brussels will probably arrive at Compiegne on the 5th of September.

"Two divisions of the Cavalry Corps will march to La Ferte sous Jouarre. With regard to a later crossing of the Marne, it will communicate with the IV corps, and if necessary, with the III corps. The Cavalry Corps will have one division opposite the northeastern front of Paris; this division will remain to-morrow in its present billets, and will be under the orders of the general commanding the IV reserve corps.

"The demolition of the railways leading towards Paris from the north, north-west and west is to be begun to-morrow. The cavalry will also relieve the outposts of the IV reserve corps near Creil, and along the southern edge of the Forest of Senlis."

All the corps movements ordered were executed on the 4th with no other opposition than that offered by the French cavalry corps and the flank guard of the nearest retreating corps. The French and British armies were still retreating according to the plan of General Joffre. The 5th French Army was moving from the front of the II German Army to that of the I Army and its place in front of the II Army was being taken by the detachment Foch which became the 9th Army on the 5th.

General Kluck had now definitely committed himself to a very ambitious and dangerous operation and on the morning of the 4th he began to worry about it and as a result sent a wireless to the German G. H. Q. which contained these sentences:

"The message of the Supreme Command, No. 2220, in accordance

with which the First Army was to follow in echelon behind the Second, could not be carried out under the circumstances. The intention to force the enemy away from Paris in a south-easterly direction was only practicable by advancing the First Army. The necessary flank protection weakens the offensive strength of the Army, and immediate reinforcements are therefore urgently needed."

This probably was the first intimation that German G. H. Q. had of the movement of the I Army since sending the previous message. A wireless reply was sent at 4:30 that same day but it was not received until 7:15 a. m. the following morning when the orders for the 5th were already being executed. The message said:

"The First and Second Armies are to remain facing the eastern front of Paris; The First Army between the Oise and the Marne, occupying the crossings west of Chateau Thierry; the Second Army between the Marne and the Seine occupying the crossings between Nogent and Mery inclusive. The Third Army will march towards Troyes and east of it."

The orders for the I Army which were in process of execution on the 5th when this message was received, were:

"The IX corps, after forcing the enemy back from Montmirail, will move with its right flank * * * to about Esternay; it will avoid the Montmirail–Sezanne road which belongs to the Second Army.

"The III corps will advance with its right flank * * * as far as Sancy.

"The IV corps to the vicinity of Choisy (a day's march south of Rebais).

"The II corps will cross the Marne and advance to the lower reaches of the Grand Morin below Coulommiers, covering the flank of the Army from the eastern front of Paris.

"The IV reserve corps will advance to-morrow to the area Marcilly–Chambry north of Meaux. It will be responsible for the protection of the Army north of the Marne from the northeastern front of Paris.

"The 4th cavalry division on the right flank will remain under the orders of the IV reserve corps to-morrow. The remainder of the II cavalry corps will advance west of the IV corps, and then in the direction of Provins. Its duty will be to attack the French flank while crossing the Seine."

General Kluck says:

"These movements were executed without difficulty. Three corps, the IV, III, and IX, with the Cavalry Corps, formed the strong wing of attack to force the enemy in a south-easterly direction, and two corps, the II and IV Reserve, with the 4th cavalry division towards the north, constituted the covering flank against Paris. In addition, the II corps was in a position to attack the British, who were believed to be south of Coulommiers and the Grand Morin, should they make a stand there."

As to the wireless received that morning he says:

"To carry out the wireless orders of the Supreme Command would mean breaking away from the enemy, and making a two or three day retreat. As regards the state of the enemy, First Army G. H. Q. had the impression that, although much exhausted by the fighting in which he had suffered severely, he had none the less been able to retire in tolerable order. Should the pursuit be stopped, he would be able to halt and regain freedom of maneuver, as well as offensive spirit. Taking this in consideration, it seemed preferable first to force him back over the Seine, and postpone till then, the wheeling of the First and Second Armies to face the eastern front of Paris. Before the enemy forces could be sufficiently strong and ready for battle, there would be time to finish the offensive toward the Seine.

"Accordingly, the suggestion set forth above was submitted both to the Supreme Command and to Second Army Headquarters; preparations, however, were made for carrying out next day, the 6th of September, the wheel ordered by the Supreme Command. The pursuit ordered for the day, the 5th of September, would be continued, since it had already started and fighting was in progress in places. The IV Reserve Corps and the Cavalry Corps would be halted * * *.

"The IV Reserve Corps, on getting the order to halt at 10 a. m. had already reached its objective, its leading divisions being in the area Marcilly–Chambry with the 4th Cavalry Division on its extreme northern flank. Air reports confirmed the fact that the enemy was continuing his retreat on the whole front from Paris to the Sezanne–Romilly road."

On the evening of the 5th, a staff officer from German G. H. Q. gave General Kluck the full text of the order of which the wireless was an extract. It was:

(a) The enemy has escaped the enveloping attacks of the I and II German armies and has secured by detachment its liaison with Paris.

(b) Reports lead to the conclusion that the enemy has withdrawn troops from the line Toul–Belfort. He is withdrawing also certain units from the front of the 3d and 5th armies.

(c) In consequence, the driving of the whole French Army toward the Swiss frontier is no longer possible.

It is inferred that the enemy is transporting important forces and forming new organizations in the region of Paris with a view of protecting the capital and menacing the right flank of our army.

(d) Consequently the I and II armies must remain in front of Paris. Their mission is to take the offensive against enterprises of the enemy based on Paris and must render each other mutual support.

(e) The IV and V armies are still in contact with the important bodies of the enemy's troops. They must increase their efforts to push these troops continuously south. By this means the road will be cleared for the VI Army on the

Moselle between Toul and Epinal. It is not possible yet to predict whether or not an action combined with the VI and VII armies in this gap will permit the driving of important forces of the enemy to the Swiss frontier. The immediate role of the VI and VII armies is to retain the enemy's forces in their front. The attack on the Moselle, between Toul and Epinal, masking those two places, is to be made as soon as possible.

(f) The III Army will take Troyes–Vandeuvre as the directrix of its march. According to circumstances it will support either the I or II armies on the Seine or take part in the action of our left wing in a southerly or southeasterly direction.

(g) In consequence His Majesty orders:

I. The I and II armies will remain before the east front of Paris to assume the offensive against every attempt of the enemy to debouche from Paris; the I Army between the Oise and Marne; the II Army between the Marne and Seine. The II Cavalry Corps at the disposition of the I Army; the I Cavalry Corps at the disposition of the II Army.

II. The III Army marches in the direction Troyes–Vandeuvre (Arcis road).

III. The IV and V armies by a steady advance must open the road to the upper Moselle to the VI and VII armies. Right of the IV Army in the direction of Vitry, right of V Army, Revigny. The IV Cavalry Corps will reconnoiter the front of the IV and V armies.

IV. Mission of VI and VII armies unchanged.

General Kluck says:

"From the detailed instructions it appeared that the enemy was transporting troops from the front Belfort–Toul westwards, and also withdrawing troops from the front of our Third, Fourth and Fifth armies. The Supreme Command, therefore, calculated that very strong enemy forces were being concentrated near Paris to protect the capital and threaten the German right flank. The bearer of instructions gave a verbal account of the general situation, and to the amazement of the First Army Headquarters, who believed all the armies to be advancing victoriously, it appeared that the left wing of the German armies—namely the Fifth, Sixth and Seventh armies—was held up in front of the French eastern fortresses, so much so that it could scarcely pin the enemy in front of it to his ground. There was consequently a possibility that the enemy would move troops by rail from his eastern wing to Paris.

"A very different aspect was thus given to the situation confronting the First Army. It was intensified by a report which arrived late in the evening of the presence of strong enemy forces about Dammartin, to the northeast of Paris."

Through the failure of liaison between the German G. H. Q. and the I Army, and the optimism of General Kluck, he now found himself in a perilous situation. The failure of liaison was due probably to the anxiety of G. H. Q. over the operations of the V, VI, and VIII armies and the belief that the operations of the I and II armies were progressing satisfactorily, as well as to the practical difficulties of keeping touch with a rapidly moving army in a hostile country in which all telegraph lines had been destroyed.

On the night of September 5, the order was issued for the corps of the I Army to retreat on the routes followed in the advance.

"The II corps was to reach the Marne in the bend northeast of Meaux. During the night a subsequent order directed it cross the Marne to support the IV reserve corps.

"The IV corps, from south of Rebais, was to reach the Marne in the bend northeast of La Ferte sous Jouarre. Later it was to recross the Marne.

"The III corps, from the west of Esternay, was ordered back to La Ferte Gaucher on the Petit Morin. This movement was prevented by the battle next morning.

"The IX corps was ordered to remain in position around Esternay, and send its trains back to the north bank of the Marne.

"The two cavalry divisions south of the Marne were to make a demonstration toward Rozoy southeast of Paris and southward of Coulommiers.

"The II and IV corps were to leave weak rear guards on the Grand Morin, and the II, IV, III and IX corps were to strongly occupy the bridges over the Marne from Meaux to Chateau Thierry."

The march of the I German Army from the Oise to the Marne had not escaped the notice of the French and British air services and had been reported to General Gallieni in Paris who took means to ascertain their correctness. He then requested permission to attack the German flank from Paris.

On the night of September 4, General Joffre decided that he had retreated far enough and the time had come to assume the offensive. Both the French and British armies had been strengthened by replacements. He therefore issued the following order:

1. "It is advisable to profit by the very exposed position of the First German Army, to concentrate on it the efforts of the allied armies of the extreme left.

   "All the dispositions will be taken during the 5th of September with a view of attacking on the 6th.

2. "The dispositions to be made on the 5th before night are:

   (a) All the disposable forces of the 6th Army to the northeast of Meaux ready to cross the Ourcq between Lizy sur Ourcq and May en Multien in the general

direction of Chateau Thierry. The disposable elements of the 1st cavalry corps will be placed under the orders of General Manoury for this operation.

(b) The British Army, established on the front Changis–Coulommiers, facing east, ready to attack in the general direction Montmirail, the 2d cavalry corps will connect the British and 5th armies.

(c) The 5th Army closing up slightly on its left will establish itself on the general front Courtecon–Esternay–Sezanne ready to attack in the direction south-north.

(d) The 9th Army (General Foch) will cover the right of the 5th Army holding the southern exits from the marsh of St. Gond moving a part of its forces on the plateau north of Sezanne.

3. "The offensive will be taken by the different armies at dawn September 6."

On the morning of the 5th he issued the following instructions to the 4th and 3d armies:

"4th Army—To-morrow September 6, our armies of the left will attack in front and flank the First and Second German armies. The 4th Army will cease its movement south, face the enemy, conform its movements to that of the 3d Army, which debouching to the north of Revigny will take the offensive bearing to the west.

3d Army—The 3d Army, protecting itself to the northeast will debouche toward the northwest attacking the left flank of the armies which are marching to the west of the Argonne. It will conform its action to that of the 4th Army which has received orders to face the enemy."

The battle of the Marne really consisted of three almost distinct battles. The battle of the Ourcq fought northeast of Paris between the I German Army and the 6th French Army reinforced by the mobile garrison of Paris; the battle of St. Gond fought around the site of a former marsh of that name between the II German Army reinforced by a part of the III Army and the 9th French Army reinforced by a part of the 5th Army; the battle of the Orne and Aire fought between Vitry le Francois and the Meuse River between the IV German Army reinforced by a part of the III Army and the V German Army against the 4th and 3d French armies.

In the battle of the Ourcq, neither army was fully concentrated at the beginning of the battle and the troops reached the front on both sides day by day to the close of the battle. Numerical superiority alternated from day to day but the total forces were probably nearly equal. In the order of arrival they were:

French—General Monoury.	Germans—General Kluck.
55th and 56th reserve divisions	IV reserve corps
Moroccan brigade	II corps
7th provisional corps	IV corps
45th Algierian division	III corps
61st reserve division	IX corps
7th division, 4th corps	brigade of IV reserve corps from Brussels.
62d reserve division	
8th division, 4th corps.	
Cavalry	
Paris brigade	IV cavalry division, II cavalry corps.
1st cavalry corps, 3 divisions	

The battle began at noon on the 5th as the 55th and 56th reserve divisions with the Moroccan division, forming the right wing of the 6th Army, were moving eastward north of the Paris–Meaux road. This movement having been seen, the IV reserve corps formed for battle and an indecisive action took place that afternoon.

The operations of the 6th were only a prelude to the battle of the 7th. The IV reserve corps retired to the vicinity of the Ourcq and the right wing of the 6th Army reinforced by the 45th division made some progress against it but was checked by the arrival of a division of the II corps on the left of the IV reserve corps. The left wing of the 6th Army consisting of the 7th corps and 61st reserve division got into position on the left of the right wing extending the line northward to Nanteuil. On the German side, the line was also extended by the arrival of the other division of the II corps and the IV corps.

In the battle of the 7th, which was obstinately fought all along the front, the 61st reserve division forming the extreme left of the French line was driven back and the line was outflanked. During the night the 7th division of the 4th corps was sent from Paris by taxi-cabs and train to the vicinity of Nanteuil to restore the flank, which now faced northward. On the German side one division of the III corps was placed in reserve behind the German left and one reached the extreme right that evening. A brigade from Brussels also reached the Oise northwest of Nanteuil.

The battle of the 8th was fiercely contested but without material gain to either side.

On the morning of the 9th, Kluck expected to encircle the left wing of the French Army with the IX corps while the brigade from Brussels attacked from the Oise. That morning the left of the 6th French Army was reinforced by the 62d division from the north of Paris and the 8th division of the 4th corps which had been south of the Marne was now north of it and marching to join the 7th division.

The battle of this day was not fought to a conclusion as the general situation of the I and II German armies was such that the staff officer from the German G. H. Q. who had brought the instructions, directed the I Army to break off the engagement about noon and retire to the Aisne.

While General Manoury had been unable to cross the Ourcq as planned by General Joffre, he had compelled General Kluck to bring most of his forces to this front and leave but a weak curtain connecting his army with the II German Army.

The battle of St. Gond began on September 6th. At the beginning of the battle the troops engaged were:

French.	German.
5th Army—General d'Esperey	I Army—General Kluck
1st corps	III corps first day only
2d corps	IX corps " " "
10th corps	
18th corps	II Army—General Bulow
19 corps, 2 divisions	VII corps
51st, 53d, and 59th reserve divs.	X corps
	X reserve corps
9th Army—General Foch	Guard corps
9th provisional corps	
11th corps	III Army—General Hausen
42d division 6th corps	
52d and 60th reserve divisions	XII reserve corps
The second regular division of the 9th corps arrived on the 7th.	XII corps, 1 division The other divisions of the XII corps arrived on the 9th.
Cavalry.	
2d cavalry corps, 3 divisions	I cavalry corps, 2 divisions.
9th cavalry division with 9th Army.	

When at noon on September 5, the II German Army, which had crossed the Marne between Chateau Thierry and Epernay reached the road running eastward from Montmirail, its commander was surprised to find in his front not the 5th French Army which he had been pursuing but a new army of whose existence he had not been aware; it was not really a new army as the 9th Army had been formed some time before. Of the 5th Army only a single corps was on his front and that in front of his extreme right. That day he received his orders to face Paris between the Marne and Seine; to do this meant to advance his left.

On the evening of this day, the 9th and 5th French armies occupied a line running from the Chalons–Arcis road on the right to Provins on the left. On the extreme right was the cavalry division of the 9th Army attempting to close the gap between the 9th and

4th armies. Then came the 11th and 9th corps with the division of the 6th corps on the extreme left. The two reserve divisions were in reserve. The line ran generally along the south side of the Petit Morin and St. Gond marsh but strong detachments were north of this line. The line of the 5th Army ran from the left of the 9th Army southward around Esternay and west to the Aubetin north of Provins where the 2d cavalry corps was facing the I cavalry corps. From right to left the 10th, 1st, 3d, and 18th corps were in the front line.

On the 6th, the 5th Army attacked the III and IX corps endeavoring to turn both flanks and the VII corps came to the assistance of the I Army by attacking the 10th corps. The X reserve, X and Guard corps were attacked by the 9th Army and in counter-attack succeeded in gaining the north bank of the Petit Morin and the swamp. There was no decision that day and that night Kluck who had gone to supervise his right, requested Bulow to take command of the III and IX corps. These were ordered to retire to the line of the II Army on the Petit Morin. On this day the British Army was engaged in getting into position on the Aubetin River connecting with the French cavalry. Between its left and the Marne was a gap which was filled by the 7th division of the 4th French corps.

On the 7th, the 5th French Army with the exception of the 10th corps which was placed under Foch's orders was not engaged as it was following up the retreat of the III and IX corps. On the right however there was a strong attack made by the II Army on the 9th Army in which the Germans succeeded in crossing the St. Gond marsh. Like the 5th Army the British advanced this day to the Grand Morin with little opposition as there was in their front only the two cavalry divisions of the II cavalry corps and detachments left by the IV corps.

On the 8th, Bulow was reinforced by two divisions of the III Army and continued his attacks on the 9th Army in an endeavor to drive back its right and rest his flank on the Seine. On his right he was engaged mainly in protecting his flank from attacks and enveloping movements. On this day he was obliged to release the III corps at noon and the IX corps at night which required constant changes in his line. That night the 5th French Army captured Montmirail. The British Army as well as the left of the 5th French Army reached the Grand Morin river.

On the night of the 8th, Bulow drew back his right behind Surmelin tributary of the Marne to prevent its being turned. He had been informed that Kluck was still heavily engaged west of the

Ourcq and that strong columns of Allied troops were marching almost unopposed to the Marne between La Ferte and the mouth of the Surmelin. To the staff officer of German G. H. Q. then at his headquarters he recommended that the I and II armies retreat behind the Aisne in order to close the gap between them. His views were accepted and he began to make preparations for his retreat. To cover his retreat he made a last attack on the morning of the 9th with his left which was now reinforced by three divisions of the III Army. At noon that day the II Army began its retreat on Reims followed at 1 p. m. by the divisions of the III Army retreating on Chalons.

The retreat was begun just in time as the British cavalry with two corps crossed the Marne this day and one corps of the 5th French Army reached Chateau Thierry.

The battle of the Orne and Aire was fought on the line Vitry le Francois–Revigny prolonged to the Meuse. There was no decision here and the German Armies retired with the II and III armies further west. During the battle here a part of the V corps made an attack from Metz on Fort Troyon south of Verdun but was defeated in its attempt to capture the fort and retired on Metz.

The forces engaged in this battle were:

French.	German.
4th Army—General Langle	IV Army—C. P. of Bavaria
2d corps	VIII corps
12th corps	XVIII corps
17th corps	VIII reserve corps
Colonial corps	XVIII reserve corps
21st corps joined at its close.	XIX corps of III Army.
3d Army—General Serrail	V Army—German C. P.
5th corps	VI corps
6th corps	XIII corps
65th, 67th and 75th reserve divs.	XVI corps
15th corps joined during battle	VI reserve corps
	V reserve corps was protecting communications from Verdun garrison.

The opening campaign on the west front from August 14 when the French began to advance in force into Alsace and Lorraine, until September 9, when the Germans began their retreat to the Aisne, is perhaps the most interesting operation of the World War, since the British, French and German troops and leaders were the product of years of training and the plans the result of careful study of the General Staff of each of these countries. The invasion of Belgium by

the German armies in case of war with France had been openly discussed for many years and had been thoroughly considered by the French General Staff; several French officers of high standing differed with the General Staff in its conclusions that the invasion would take place south of the Meuse only.

By their initial concentration, the Germans secured a decided military advantage and had General Joffre followed the example of the French commanders in 1870 and allowed the Germans to profit by this concentration to overwhelm the Allied armies on the frontier, the Germans would undoubtedly have won a decisive victory. In withdrawing his armies, even at the sacrifice of territory, General Joffre deprived them of their initial advantage and eventually fought the battle of the Marne with all the conditions in his favor. The Germans probably counted on the French commander reducing the strength of the 1st and 2d armies in order to reinforce his left and thus enable the VI and VII armies to break through the eastern frontier into the valley of the Marne but in this they were mistaken for General Joffre appreciated the necessity of holding Nancy–Epinal gap and would not weaken this front.

The turn of the tide in favor of the Allies began on August 26th when two corps were withdrawn from the II and III German armies to be sent to Russia. This weakened the force available for the continued attack of the 5th French Army which occupied the critical position in the French line. The situation of this army was still further improved when on the following days the III Army lost touch with the II Army and the I Army moved off to the west to prevent the British Army from retiring toward the coast. Had Kluck turned eastward on the 29th, as he had proposed, he might still have been in time to act on the flank and rear of the 5th French Army but when he turned on the 31st, he was too late. It is probable that a better cooperation of the German armies against the Allied left wing would have resulted had the three armies been placed under the command of General Bulow instead of having been retained by German G. H. Q. which did not keep in touch with the military situation as it developed from day to day.

It is evident from the description of the operations that General Joffre, who did not remain at his headquarters at Vitry le Francois, had throughout the period covered by the campaign a better grasp of the entire situation than the German G. H. Q. and to this better understanding his success was due. After the failure of the plan carefully prepared in time of peace, he evolved new plans based on the actual situation as he saw it from time to time of which the

central thought seems to have been to prevent the destruction of his armies in detail and to resume the offensive as soon as practicable. The rapid advance of the German armies prevented his carrying out his second plan and it became necessary to retreat behind the Marne before the favorable opportunity occurred. Although the retreat caused the abondonment of a large territory it had its compensating advantages in that it weakened the German armies by requiring large detachments to lay siege to fortresses and guard the communications while the French and British armies were strengthened by replacements assembled south of the Marne.

The success of the Allied troops was largely due to the fortresses of Paris and Verdun which prevented any outflanking operations of the German armies after this line was crossed.

CHAPTER III.

FROM THE MARNE TO THE CHANNEL.

Battle of the Aisne.—On the morning of September 9, the Germans acknowledged defeat in the battle of the Marne and orders were issued by I, II and III armies to begin the retreat. It became necessary to withdraw to some line in rear in order to close the gap which had been opened between the I and II armies. The line selected was the Aisne River, which flows from east to west through Soissons and empties into the Oise. On the line of heights on the north bank of the river the I Army withdrew, leaving rearguards to check the Allied armies and destroy bridges; the II Army retreated on Reims and the III Army on Chalons. The IV and V armies continued the battle a day or two longer until their right flanks were uncovered. Eventually all the German armies halted and intrenched on a line which began on the Oise south of Noyon, followed the ridge north of the Aisne to the Laon–Reims road where it crossed the Aisne, skirted Reims and Suippe on the north, crossed the Argonne Forest and reached the Meuse north of Verdun.

On the 10th the order was given for pursuit, in which the 6th French, the British and 5th French armies were to cover the territory between the Oise River and Reims and the 9th, 4th and 3d French armies the country between Reims and Verdun. At first it was thought that the German armies would retire to the Meuse, but on the 13th it was definitely known that they had halted and intrenched on the line described and that reinforcements with heavy artillery had been received from Maubeuge, which surrendered September 7, and from other points. The VII reserve corps from Maubeuge and the XV corps from the VII Army joined at this time and occupied the line between the I and II armies forming a new VII Army under General Heeringen. The I, VII and II armies were placed under the command of Bulow.

The 6th French Army west of Soissons and the British Army east of Soissons succeeded in crossing the Aisne but were unable to break the German line, and the Germans began to counter-attack. It soon became evident that neither side would be able to advance and although there was fighting here throughout the year, the lines became practically stabilized by the middle of September.

First Battle of the Somme.—In Lorraine, the VI and VII German armies began to withdraw toward a new intrenched line near the

frontier when the Germans retreated from the Marne, thus releasing the pressure on the 1st and 2d French armies. When it became evident that the German positions on the Aisne line could not be successfully attacked, the greater part of General Castelnau's 2d Army was railed to the north of Paris to assist the left wing of the 6th Army to outflank the German line from the west bank of the Oise. The Germans however were intent on the same maneuver; the IX reserve corps from Belgium arrived at Lassigny followed by a corps from the VI Army from Lorraine and the opposing armies began a series of battles around Lassigny and Roye, which were extended northward west of Peronne and terminated with the left of Castelnau's army at Albert on the Ancre River. These operations began about September 20, and terminated with the lines stabilized about October 1. Noyon, Lassigny, Chaulnes, Peronne and Bapaume remained in possession of the new German II Army, but Castelnau had succeeded in turning the line northward instead of westward in continuation of the Aisne line.

It was in the latter part of September, after the withdrawal of the 2d French Army from Lorraine, that the Germans advanced from the Moselle and captured the St. Mihiel salient south of Verdun, which they held until it was captured by the Americans in 1918.

Battle of Arras.—As soon as it became evident that Castelnau could not outflank the German line, General Joffre withdrew more troops from his center and right and formed the 10th Army under General Maud'huy, formerly commander of the 18th corps, north of Amiens to advance through the valley of the Scarpe on either side of Arras in the direction of Douai to turn the German flank. To coordinate the operations of the 2d and 10th armies, General Foch was placed in command of the two armies and eventually of the group of French armies between the Oise River and the English Channel. When the 10th Army advanced from the vicinity of Amiens in the first week of October and reached Arras, the German troops were already at the gates of the town, and while Maud'huy was able to hold the town he was unable to advance from it. With the accession of new troops the French line was extended northward to the west of Lens and the French cavalry extended the line to the Lys River northwest of Lille which was held by a French Territorial detachment. Maud'huy's resources did not permit of him to extend his infantry to Lille and occupy it in strength. The Germans also extended their line northward and occupied Lens.

In the operations north of the Oise, both the French and German cavalries operated on the northern flank of the line. The French

cavalry, consisted of the 1st and 2d cavalry corps, Generals Mitry and Conneau, and the Germans of the I and II cavalry corps, Generals Richthofen and Marwitz, each of three divisions. At the close of this period, about October 10, the German cavalry with its rifle battalions and bicycle companies occupied a line running roughly Bassee–Merville–Hazebrouck.

British Operations south of the Lys River.—At the end of September the British Army was on the Aisne River east of Soissons, between the 6th and 5th French Armies. As the army was far from its base and was expecting reinforcements which would enable it to take up a larger front, General French requested that his army be relieved from its present position and moved up in the neighborhood of the Channel on the left of the 10th French Army where it could be more easily supplied. As active operations on the Aisne front had ceased, General Joffre consented to this plan and beginning about October 2, the British forces were carefully withdrawn from the line so as not to attract attention and entrained for the new front.

On the Aisne, the last of the six divisions of the Expeditionary Force joined the British Army and the 3d corps was completely organized under General Pulteney. During September, the first British reinforcements to the Expeditionary Force arrived at Marseilles in the form of an East Indian corps of two divisions and an Indian cavalry corps. The brigades in the corps consisted of one British and three native battalions. Early in October the Indian troops were ready to be moved to the front. Additional reinforcements were also ready in England; these consisted of the 7th regular division, made up of troops withdrawn from various overseas garrisons, and the 3d cavalry division.

The British cavalry started on its march to the new front on October 2 and the 2d corps began to entrain for Abbeville on the following day. In a conference between Generals Foch and French at the former's headquarters at Doullens, the British plan of operations was decided. The 2d British corps was to be deployed along the Bethune–Aire canal and as soon as the 3d corps arrived to protect its left, it was to advance and close the gap between Lille and the 10th French Army. The 3d corps was to advance immediately after between Lille and the Lys River in the direction of Roubaix. The 1st corps, which would arrive a week later, was to prolong the English line to the northeast.

The 2d British corps was in position on October 11, and the 3d arrived at St. Omer and advanced to Hazebrouck shortly after. On

the 13th, the 2d British corps began to advance its left covered by Conneau's French cavalry corps, against the German cavalry south of the Lys River. By this time, however, the situation in its front had changed. One German corps was between Lens and Lille and on the very day the 3d corps started forward another German corps compelled the French Territorial division to evacuate Lille. The 2d British corps was therefore brought to a standstill at Auber ridge about midway between Bethune and Lille. It intrenched there on the left of the 10th French Army with Conneau's French cavalry on its left.

The 3d British corps next advanced north of the Lys River covered by British cavalry, now forming a corps of the 1st and 2d divisions under General Allenby, and Mitry's French cavalry corps. The German cavalry north of Lys was driven back, recrossed the Lys near Menin and guarded the river crossings. The 3d corps advanced as far as Armentieres where one division crossed the Lys to connect with Conneau's French cavalry corps and the other deployed along the north bank. The right division of the 3d corps was unable to advance on Lille and the left division was unable to cross the river in its front strongly held by German infantry. Although there was severe fighting on the British front south of Lys until the close of active operations on the west front and the British troops were reinforced by the East Indian corps, the lines were practically stabilized on the 20th of October.

Battle of Flanders.—In preparation for further military operations, during the month of September, the Germans formed six and half new corps, the XXII, XXIII, XXIV, XXV, XXVI, XXVII reserve corps and the VI Bavarian reserve division. These corps were ready to take the field early in October. Although they were urgently called for by General Hindenburg on the east front, it was decided to send him only one, the XXV, and employ the others in an attempt to outflank the Allied line and secure the Channel ports of Dunkirk and Calais. As a preliminary operation, it was decided to capture the fortress of Antwerp and thus protect the communications from attack in force by the Belgian Army such as had been attempted during the Marne campaign.

Antwerp was the strongest fortified place in Europe and was surrounded by three lines of works. The outer line, which had been but recently completed formed a girdle about 10 miles from the city and consisted of forts similar to those at Liege and Namur but of more recent construction. They were however not proof against the fire of the great German and Austrian howitzers. When this

line was penetrated, the other lines of much older construction were incapable of offering any serious resistance. The commander of the III reserve corps who had under his orders the army of occupation was directed to capture Antwerp in the shortest possible time, and the heavy howitzers were sent to him from Maubeuge and Namur. Not having sufficient forces to invest the place, the operations were confined to an attack on the outer line of forts southeast of the city. The bombardment was begun on September 28 and on October 6, the Belgian Army began to evacuate the town moving westward on Ostend. The town itself was surrendered on the 9th.

As soon as the attack on Antwerp began, the Allied governments organized an army for its relief which was to be landed at Zeebrugge and Ostend. The British contingent consisted of two naval brigades and the 4th corps of Regulars then consisting of the 7th division and 3d cavalry division. The French contingent was to consist of a marine brigade of 8,000 men and two Territorial divisions. The siege progressed so rapidly that only the British naval brigades reached Antwerp before its surrender; the 4th British corps and the French marine brigade got no further than Ghent and Bruges where they remained to cover the retreat of the Belgian Army and then fell back with them, the 4th corps to Ypres and the French Naval Brigade to Dixmuide. The two French Territorial divisions landed at Dunkirk and went to Ypres. The III German reserve corps took up the pursuit of the Belgian Army which retreated on Ostend.

Shortly after the fall of Antwerp, the XXII, XXIII, XXVI and XXVII reserve corps of the German Army were entrained for the west front and established themselves on the line Ostend–Courtrai on the left of the III reserve corps to form with it the IV German Army under the Crown Prince of Wurtemburg. The German plan was for this army to advance westward with the III reserve corps in advance to clear the coast and eventually to wheel round to the left. On the 18th of October, the IV German Army was on the general line Ostend–Courtrai. The XXIV reserve corps and the VI Bavarian reserve division were en route to join the new VI German Army between the Scarpe and Lys rivers.

While the IV German Army was being formed, General French reached his new front and found the situation different from that upon which his original plan was based. Neither the 2d nor the 3d British corps were able to advance as far as had been planned. The 7th division and 3d cavalry division had fallen back on Ypres and now formed the 4th corps under General Rawlinson; the 8th division of this corps was being formed in England. General French knew

that the Germans had advanced west of Bruges in pursuit of the Belgians but in what strength he did not know. It was assumed that it was the force that had conducted the siege of Antwerp which was known to consist mainly of the III reserve corps. He directed the 4th British corps to advance at once and capture Menin on the Lys River to the left of the 3d corps and secure its bridges if its commander deemed it practicable but the latter thought it best to await the arrival of the 1st corps which was to reach Ypres on October 19.

It was finally decided by Generals Foch and French that as soon as the 1st British corps arrived at Ypres to employ the Belgian Army, the French troops of the Antwerp relieving army and the 1st British corps to drive the Germans between the Channel and the Lys River back on Bruges in order to permit the flanking operations on the Lys to be carried out without danger of attack in rear. This plan however could not be executed because the German forces were much stronger than had been estimated and the Allies found it necessary to fight a defensive battle.

On the 18th of October, the German IV Army began to move westward. The III reserve corps of three divisions moved from the vicinity of Ostend to cross the Yser River between the Channel and Dixmuide to clear the coast. The XXII reserve corps southwest of Bruges was to pass to the north of Thourout and march on Dixmuide on the Yser River; the XXIII reserve corps farther south was to pass to the south of Thourout and march for the Ypres canal between Dixmuide and Ypres; the XXVI reserve corps was to march through Roulers on Ypres; the XXVII reserve corps, forming at Courtrai, was to cross the Ypres–Commines canal south of Ypres.

At this time the main body of the Belgian Army was behind the Yser River between the Channel and Dixmuide with strong rear guards in villages and intrenchments on the east bank. Dixmuide east of the canal, was held by the French marine brigade of 8,000 men strongly supported by artillery. The two French Territorial divisions were along the Ypres canal between Dixmuide and Ypres with Mitry's cavalry corps well in advance toward the Thourout–Roulers road. The 4th British corps occupied the front between Roulers and the Lys and was under orders to march to Menin on the 19th. One division of the 3d British corps was along the Lys from Armentieres to Warneton with the 1st and 2d cavalry divisions extending the line northward toward Ypres where the 1st corps was expected on the 19th.

Because of the extent of the front, the battle of Flanders naturally divided itself into a number of almost distinct operations.

These were the battle of the Yser, the attack and defense of Dixmuide, the battle north of Ypres and the battle south of Ypres.

Battle of the Yser.—When the III German reserve corps of three divisions advanced on the 18th to cross the Yser it found the Belgians strongly intrenched on the east bank and their front covered by the fire of British monitors. It was therefore not until the 20th, that the Germans were able to reach the Yser and their plans of crossing the river close to the Channel had to be abandoned. On the night of October 21st, the Germans succeeded in getting a bridge over the Yser and by the 25th, two divisions of the III reserve corps were on the west bank. The Belgians now retired to a railway embankment about two miles from the river where they were reinforced by a division of French troops. The Germans now advanced slowly west of the river under heavy artillery fire and it was not until the 30th that they were able to take the town of Ramscappelle on the railway. This ended their advance on this front as the Belgians had opened sluice gates that flooded the country between the railway and river and the Germans were compelled to withdraw. The attack along the Yser had failed.

Dixmuide.—Dixmuide held by the French marines supported by the 5th Belgian division was attacked on the 20th by the XXII reserve corps, one division from the northeast and another from the southeast. It was most obstinately defended during the 20th, 21st, 22d and 23d and the Germans were unable to take it. On the 24th, it was brought under the fire of the great German mortars while one division of the XXII corps threw bridges over the Yser to the north to attack it from the northwest. On the 25th the Germans made another desperate attempt to take Dixmuide from the east and were again repulsed. Attempts to take it from the west bank on October 31st and November 1st also failed and the German troops were withdrawn across the river as the area was being flooded. The town was now kept under fire until the morning of November 10, when after a fierce bombardment of artillery and trench mortars, it was finally captured by a division of the XXII reserve corps. At Dixmuide the French marine brigade distinguished itself by its obstinate defense which prevented the Germans from taking it until the great battle of Flanders was practically over.

Battle North of Ypres.—On the 19th of October the XXIII and XXVI corps fought their way across the Thourout–Roulers road

where many of the villages were strongly held by outposts of Mitry's French cavalry division which delayed their march. On the 20th they renewed their advance and while the XXIII corps found its advance opposed only by cavalry, the XXVI corps was held up in the afternoon by the 1st British corps which had reached Ypres and taken up a position with its right on the Roulers–Ypres railway at Zonnebeke. The two French Territorial divisions were now concentrated on the front of the XXIII corps. On the 21st, the XXVI corps attacked the British in front while one division of the XXIII corps attacked in flank. To relieve the pressure the two Territorial divisions made a counter-attack. There was very severe fighting on this front during the 22d and 23d without any advance on the part of the Germans. On the night of the 23d, the 1st British corps was relieved by the 9th French corps, and a French division reinforced the Territorials. The 9th corps at once took up the offensive and the Germans had to send to this front all the IV Army reserves. Operations on this front were exceedingly active up to the end of the battle of Flanders. In the final attack on this front on November 10, the XXIII reserve corps reached the Ypres canal and a few troops succeeded in crossing but were soon thrown back.

Battle South of Ypres.—On the morning of October 19, the 3d British cavalry division was covering the front between the French cavalry and the 7th division whose left brigade was at Becelaire on the ridge east of Ypres and about six miles from the town. The right brigade of the 7th division was at Zandvord between the Menin road and the Ypres–Commines canal. The 1st and 2d cavalry divisions extended the line to the left of the 3d corps which was west of Warneton. The German cavalry was on the front of the British troops from Warneton to the Menin road and the XXVII reserve corps was advancing from Courtrai.

In accordance with previous orders, the left brigade of the 7th division began to advance on Menin on the 19th and encountered the advance guard of the XXVII reserve corps on the Menin–Roulers road. As the Germans were in great strength, the brigade fell back on Becelaire and the 7th division intrenched its line. During the following days the pressure on the southeastern front was increased and the 3d cavalry division, being relieved by the 1st corps on the 20th, took its position on the right of the 7th division where the line was weak. Until the 24th, the 7th division was heavily engaged and had to fall back; on the 24th, however, the 1st corps come to its support, having been relieved by the 9th French corps, and the German advance on this front was checked.

On October 27, the German Chief of Staff, General Falkenhayn, visited this front. At that time, the III reserve corps was still advancing in the north but all the other corps of the IV Army had been brought to a standstill. He decided to strengthen the attack just north of the Lys by extending the line of the VI German Army to the north bank of the Lys and make this wing of the VI Army as strong as possible. During the following days five divisions of the VI Army were transferred to the north bank and besides their divisional artillery, some 70 field and siege howitzers were collected to prepare their attack. The attack was to be launched on the morning of October 30 and the XXIII, XXVI and XXVII reserve corps of the IV Army were to attack at the same time. To prevent the transfer of British troops to the north of the Lys, a simultaneous attack was to be made south of the Lys.

October 30 to November 1 were critical days for the British Army as the attack of the newly organized right wing of the VI Army fell on the British line between the Menin road and Lys River which was held in the center by the cavalry corps and on the wings by a brigade of the 7th division and the left division of the 3d corps. The important centers of Messines and Wytschaet on the high ground south of Ypres were the main objectives and these were held by the cavalry and a few battalions of infantry. In a series of desperate attacks Messines was taken on October 31st and Wytschaet on November 1, and the Germans were confident that they had at last broken through the Allied line. On the 1st of November, however, the French 16th corps reached the field and with a division of the 9th corps and other French troops took over the line from the Menin road to the left of the 3d British corps. The 3d corps had been attacked mainly by German cavalry and had held its line.

In the early days of November, the Germans made their preparations for the last general attack. Because of the inundations, the main body of the the main body of the III reserve corps was moved to the center of the line; one of its divisions was assigned to assist a division of the XXII reserve corps in an attack on Dixmuide, while the remaining two divisions were interpolated in the line between the XXIII and XXVI reserve corps to attack the Ypres front. The detachment of the VI Army north of the Lys was reinforced by four additional divisions and its front extended to the east of the Menin road where a division of the Guards was placed in line.

The final attack of the IV Army was made on November 10, when

Dixmuide was taken by the XXIII reserve corps reinforced by a division fo the XXII corps reached the Ypres canal several miles north of Ypres where some of its troops crossed the canal. The detachment of the VI Army made its final attack on the 11th but now the Allied line was too strong and the attack was repulsed. Minor operations continued until November 20th, when the lines were finally consolidated for the winter.

In the battle of Flanders, north of the Lys River, the Germans employed from the beginning to the end 25 divisions of active, reserve, and landwehr troops and 6 cavalry divisions. The Belgians employed 5 divisions and 1 cavalry division, the British 4 divisions and 3 cavalry divisions, and the French 13 divisions and 8 divisions of cavalry. In addition to the above, the British reinforced their lines north of the Lys by brigades from the south of the Lys and also received a number of Territorial battalions during the battle. The French had in addition the marine brigade, battalions of zouaves, Senagalese and other detached troops. There was probably no great difference between the forces engaged on the entire front by the Allies and Germans but the latter had the advantage of executing a plan prepared in advance.

Appreciating the necessity of preventing the Germans from reaching the Channel ports, both Generals Joffre and Foch were present at the battle and personally directed the employment of French reserves during the battle. The French troops on this front were organized as the 8th Army under General d'Urbal.

The battle of Flanders was the third serious check met by the Germans on the west front in 1914; the others were the battles of Lorraine and the Marne. Due to the long period covered by the battle and the almost continuous fighting the losses were heavy on both sides. At the time of the battle, the German G. H. Q. estimated the combatant strength of the Germans on the west front as 1,700,000 and the Allies as 2,300,000 men. No data is given upon which the estimates are based.

CHAPTER IV.

OPERATIONS ON THE RUSSIAN AND SERBIAN FRONTS.

The German–Austrian–Russian Boundary in 1914. — All the operations on the east front in the world war were governed by the peculiar form of the boundary of Russia and Austro-Germany, which made certain provinces of each peculiarly vulnerable.

The Russian base for operations against East Prussia and the line of defense to which its armies could retire in case of defeat, was the line formed by the Nieman River between Kovno and Grodno, and the Narew and its main tributary, the Bohr, from Grodno to Novo Georgievsk at the junction of the Narew and Vistula. On the Nieman were the three great fortified railway bridgeheads of Kovno, Olita and Grodno, all about fifty miles from the frontier. On the Bohr was the fortified railway bridgehead of Osowiec, and on the Narew the fortified bridgeheads of Lomza, Ostrolenka, Rozan, Pultusk, Sierok and Novo Georgievsk. The country bordering the Bohr and Narew is marshy, which added strength to this line of defense. The province of East Prussia was necessarily the first objective of the northern Russian armies since no advance could be made with safety through West Poland as long as the Germans occupied this province.

The main German base of operations in the north was the Vistula River between the Baltic and the fortress of Thorn, separating the provinces of East and West Prussia. East Prussia was particularly vulnerable since it had no natural frontier line of defense and could be invaded from the east and south. For its defense, Germany had to rely upon her troops aided by her excellent network of railways which permitted their rapid transfer from point to point. In East Prussia there was the fortress of Konigsberg which must be captured or masked by the Russians before they could cross the Vistula. East Prussia would not be safe from invasion so long as the Russians could concentrate their forces behind the Nieman and Narew rivers; therefore the first great objective of the German armies in the north must be the capture of the fortified bridgeheads on these two rivers.

Limited by the Vistula River on the north and east, by the Prussian province of Posen and Silesia on the west and by the Austrian province of Galicia on the south, was an important part of the

Russian province of Poland. It was peculiarly open to invasion by German and Austrian armies which could by their numerous railways be concentrated at any single point on the frontier. In their defensive scheme, the Russians had recognized the difficulty of holding this territory at the beginning of a war with the Central Powers, and had established their main line of defense on the Vistula River two hundred miles from the German boundary. On this river they had constructed the great fortified railway bridgeheads of Novo Georgievsk, Warsaw and Ivangorod to be supplemented by smaller ones in time of war. It was a line on which the Russian armies could be readily concentrated for defense and it could be easily held, so long as the Nieman–Narew line was held on the north and the Austrians could be prevented from advancing on its rear from Galicia. Considering the size of West Poland it had few railroads and like Russian railroads they were of wider gauge than those of Germany and Austria. In the north was the railroad from Thorn to Warsaw via Lowitz. Further south was the railroad from Kalisz to Warsaw via Lodz and Lowitz. From the southeast corner of Germany railways ran to Warsaw and Ivangorod, which were connected by a transverse line from Lodz.

For the protection of the Prussian provinces of Poland and Silesia from invasion from the Russian base on the Vistula, Germany had to rely as in the north on her armies and railways. The frontier was open and the only important fortress was Posen.

In the south between the Carpathian Mountains and the Russian territory were the Austrian provinces of Galicia and Bukowina. As Austrian armies in the eastern part of Galicia territory threatened the rear of the Vistula line, its possession by Russian troops was even more essential than East Prussia. Russian troops in Galicia would however never be quite secure without the possession of the passes in the Carpathian Mountains. If these were held, not only would their communications be secure but they would threaten an advance into Hungary. These passes would therefore constitute a second objective.

That part of Galicia east of the San River and Bukowina were peculiarly open to invasion by Russian armies. The natural line of defense of Austria was, like that of Germany in the north, behind her frontier provinces in the passes of the Carpathian Mountains. In order to limit the advance of the Russian armies in Galicia, Austria had organized a secondary line on the San River, a tributary of the Vistula, on which she had constructed the fortress of Przemysl and bridgeheads at Jaroslau and Radymo which were to

be supplemented by other bridgeheads in time of war. At the extreme west end of the province of Galicia was the fortress of Cracow, which covered the wide mountain gap which was the gateway to Vienna.

Plans.—The Russian plan of concentration was based on the simultaneous formation of two groups of armies. The northern group was to invade the province of East Prussia, drive the German troops beyond the Vistula River and lay siege to the fortress of Konigsberg. The southern group was to invade the province of Galicia, drive the Austro-Hungarian troops over the Carpathian Mountains and the San River, secure the mountain passes and lay siege to the Austrian fortress of Przemsyl. Having thus cleared the flanks as far as the line of the Vistula and San, an advance could be made on Cracow and through West Poland. The combined armies were under the command of the Grand Duke Nicholas whose father had commanded the Russian armies in the Russo-Turkish war of 1877–1878.

The German plan was simply to defend East Prussia with the available troops until reinforcements were received from France. The Austrian plan was more ambitious since it contemplated an invasion of Poland east of the Vistula to destroy the railways and thus prevent rapid concentration of the Russian armies.

Battle of Tannenberg.—For the invasion of East Prussia, the Russian plan provided for the formation of two armies, mainly from the troops in the two frontier districts of Wilna and Warsaw. The 1st Army or Army of Wilna, under General Rennencamp, consisted of four corps, a rifle division and two cavalry divisions of the Wilna District, the Guard cavalry corps of Petrograd and a number of reserve divisions. The 2d Army, or Army of the Narew, under General Ssamsanow, consisted of the three corps and three cavalry divisions of the Warsaw District, one corps from Petrograd and one from the Moscow District.

The only obstacle to an invasion of East Prussia from the east is a series of large lakes extending from north to south between Angerburg and Johannisburg on a front of over forty miles. The lakes are separated by narrow strips of ground, easily defended, of which one is protected by a permanent barrier fort. Small gunboats were on these lakes. The lake barrier made it necessary for the two armies to invade East Prussia along separate lines with a view of uniting west of the lakes. The Army of Wilna would naturally follow the Wilna–Konigsberg railroad as a directrix as

far as Insterburg; the Army of the Narew would follow the line Ostralanka–Ortelsburg–Allenstein as a directrix. Contact between the two armies would be made in the region of Rastenburg. This seems to have been the general plan adopted by the Russian G. H. Q. A reserve army, the 10th Army, was being formed at Grodno from a rifle corps from the Petrograd District, reserve divisions, and a Serbian rifle corps.

The German G. H. Q. had left for the defense of East Prussia but three active corps, the I, XVII and XX corps and the I cavalry division. In addition there were mobilized the I and II reserve corps, a landwehr corps and other reserve landwehr and landsturm troops. Besides the formation of this VIII Army, it was necessary to provide garrisons for the fortresses of Konigsberg, Thorn, Dantzig and the smaller forts on the Vistula between Thorn and Dantzig. The VIII German Army was divided into two wings; the left wing, which was to resist invasion north of the lakes, was composed of two corps, three reserve divisions and the cavalry division; the right wing, which was to resist invasion south of the lakes, was composed of one corps, a landwehr corps and local landsturm troops.

German G. H. Q. had hoped that Russian mobilization and concentration would be slow and that a favorable decision would be reached in the west before East Prussia was seriously threatened. These hopes were not realized as the cavalry of the Wilna Army crossed the frontier on the very day that the German armies in the west began to move. The main Wilna Army followed its cavalry on a wide front brushing away the small detachments sent to delay its march. When it reached the Gumbinnen front, August 20, it was attacked by the left wing of the VIII Army with some success, but immediately thereafter this wing was withdrawn, as the Narew Army was moving up from the south and threatening to get in its rear. The right wing of the VIII Army was too weak to prevent the advance of this army.

As the Narew Army was the more dangerous it was decided to strengthen the right wing of the VIII Army at once from the left and retire the remainder of the left wing until the army was united. If necessary it was decided to evacuate all of East Prussia and retire behind the Vistula. This latter decision was announced to the German G. H. Q. by the commander of the VIII Army August 22, immediately after the Narew Army crossed the frontier and while the left wing was still east of Insterburg. As the moral effect of such a retirement would be very great, German

G. H. Q. was unwilling to permit it and sent a message to General Hindenburg who was acquainted with the country and offered him command of the VIII Army. Hindenburg had been retired some years before and been given no command at the outbreak of the war; he accepted the responsibility offered him. General Ludendorff was assigned to assist him as chief of staff. Ludendorff was an officer of the General Staff who was familiar with the general plans for the war. He was present at Liege on the night of August 5 and when the commander of one of the brigades was wounded, he assumed command of the brigade, led it through the line of forts and captured the town on August 7th. Hindenburg with Ludendorff reached the east front August 23. The situation was then as follows:

The XVII corps and I reserve corps with the cavalry and mobile troops of the Konigsberg garrison were facing Rennencamp's army. The I corps had been withdrawn from the left and the III reserve division from the right to assist the right wing of the VIII Army. Rennencamp was advancing slowly on Insterburg and Tilsit and Ssamsanow was advancing with three corps on Allenstein with one corps in echelon in rear of each flank advancing on Soldau and Seeburg. The commander of the right wing of the VIII Army had called to his assistance the mobile garrison of the fortress of Thorn.

Hindenburg and his chief of staff decided that their only hope of success was to take immediate advantage of the position of the troops and attack the Army of the Narew with all available forces in order to win a prompt and decisive victory. The only important change made was to order up all available troops from the Vistula defenses. The plan adopted involved risk, as the two corps of the left wing were to turn their backs on Rennencamp's army and be protected from it by a thin cavalry screen while engaged with Ssamsanow. Should Rennencamp push forward with vigor, these corps would find themselves between the two Russian armies. The mobile garrison of Konigsberg was left with the cavalry screen.

It took three days before all the troops were in position for the attack. During that time Rennencamp had advanced to the line Angerburg–Insterburg–Tilsit. Here he stopped while his cavalry felt for the right flank of the Narew Army from which he was separated by the XVII corps and I reserve corps. Ssamsanow's advance corps were in possession of Allenstein from which the Germans had withdrawn. On the morning of the 27th Hindenburg's troops were in position. His right wing south of Allenstein

consisted of a landwehr division from Thorn and the I and XX corps, his center behind Allenstein consisted of a landwehr corps and a reserve division; his left consisted of the XVII corps and I reserve corps. Cavalry was on the extreme right and left.

The German line was not long enough to outflank the Narew Army, so the plan was to drive through with the I corps and XVII corps, cut off the two Russian flank corps and surround the three advance corps. It took three days of severe fighting to accomplish his object; on the 29th the 13th, 15th and 23d Russian corps were practically captured or destroyed. Ssamsanow was found dead on the field and two of his corps commanders with about 90,000 men were captured. The Russian Army lost the artillery and trains of these corps as well as those belonging to the army. The 1st corps on the left and the 6th on the right escaped with ordinary losses. The battle was called Tannenberg in honor of a battle fought in 1409 between the German Knights and the allied Poles and Lithuanians near a village of that name between Osterode and Soldau.

During the battle, Rennencamp advanced his right so that he occupied the line Wehlau–Gerdauen–Angerburg, where he intrenched. He was now facing southwest. A part of the 6th corps of the Narew Army retired south of the lakes to the vicinity of Lyck, where it was joined by the greater part of the 10th Army from Grodno; the 1st corps retired to the Narew River.

After the battle of Tannenberg, Hindenburg was reinforced by the XI and Guard reserve corps and a cavalry division from Belgium and he now made preparations to drive Rennencamp's army across the Nieman. Several days were required to rest the troops and get them in position, and he was not ready to attack until September 7. At that time the Guard reserve, the I reserve, the XI and XX corps faced Rennencamp's main line; the XVII corps with two cavalry divisions was to advance between the lakes; the I corps, a reserve division and the landwehr corps were to advance south of the lakes. It was not Rennencamp's purpose to remain in East Prussia but time was necessary to withdraw his supplies, etc. From the 7th to the 10th of September he repelled all attacks on his main position, and then began to retreat. In the meantime some of his reserve divisions with the 6th corps and the 10th army had some severe fighting in protecting his left flank. Hindenburg hoped that his right and center would be able to cut off Rennencamp's retreat, but in this he was disappointed. Eventually Rennencamp withdrew across the Nieman. The Germans claimed

to have taken 45,000 prisoners in this last campaign which terminated about the middle of September. The Germans call the operations against Rennencamp the first battle of the Masurian Lakes.

Russian Invasion of Galicia.—In the south the Russian armies had an easier task although the Austrian forces were larger. At the beginning of operations five of the sixteen active corps of the Austria-Hungarian Army were still on the Serbian frontier, and four of these remained during the year. The landwehr divisions of Austria and Hungary, which were incorporated in the armies, had not the training of the reserves and landwehr of Germany. Italy had declared her neutrality, but it was doubtful if she would long remain out of the war and therefore all the troops could not be withdrawn from that frontier. Austria was also obliged to keep troops on the Rumanian frontier.

The Russian plan was to invade Galicia and Bukowina along the entire front from the Vistula around to Rumania. Two armies were organized under Generals Ewerts and Plehve at Lublin and Kolm to advance across the frontier between the Vistula and Bug rivers. These armies were under General Ivanov one of the successful corps commanders of the Russo-Japanese war. Two armies under Generals Russky and Brusilov, were to cross the frontier between the Bug and Dniester into Bukowina.

The Austrian plan prepared by the Chief of Staff, General Conrad von Hotzendorf, was an ambitious one considering the means available. The forces were divided into three armies of which the I and IV were to invade Poland between the Vistula and Bug rivers while the III Army defended the eastern frontier of Galicia; a part of the latter army was left as a general reserve at Lemberg.

The I and IV Austrian armies crossed the frontier while the Russians were still concentrating, and on August 25 and 26 won some engagements with advanced troops of the armies of General Ivanov on the roads to Lublin and Kolm, but were unable to reach their objective, which was the railway through these towns. In the meantime the III Army was trying vainly to resist the Russian armies in the east, which began to cross the frontier on August 22d. The Russian armies under Russky and Brusilov advanced slowly but irresistably. Lemberg was evacuated on September 1, and the Russians occupied it on the 3d. The Austrians made a last attempt to halt the invading armies by taking a stand on the ridge between the San and Bug rivers between Rawaruska and the

Dniester River where the III and IV armies were concentrated. Here the Austrians were reinforced by the two corps withdrawn from the Serbian frontier.

The great battle of Rawaruska–Grodek was fought during the week of September 7–14, on the same days that Hindenburg was attacking Rennencamp in East Prussia and the Germans were retreating from the Marne; it was finally won by the Russian armies by turning the left flank of the Austrians at Rawaruska.

After this battle all the Austrian armies retreated westward across the San to the Wisloka River. The Austrian losses in this first campaign were very heavy. Besides the usual casualties, whole units either deserted or allowed themselves to be captured.

After the battle of Rawaruska–Grodek and the first battle of the Masurian Lakes, there was a change in the Russian commands. General Russky was assigned to the command of the northern Russian armies and General Ivanov assumed command of the armies operating against the Austrians. Ivanov's forces advanced to the San River pushing cavalry as far as the Wisloka River and Cossacks over the Carpathian Mountains into the valleys of Hungary; the fortress of Przemysl was invested. The advance into Galicia was temporarily halted in order to relay the Austrian railways, whose gauge differed from that of the Russian railways, and to bring up supplies.

The first period of the war on the Russian frontier closed with the first battle of the Masurian Lakes in the north and with the battle of Rawaruska–Grodek and the investment of Przemysl in the south. The Russian plan of invasion had failed in East Prussia but had been successful in Galicia. At the end of this period the German Chief of Staff estimated the situation on the east front as follows: (General Headquarters, 1914–1916, Falkenhayn.)

	Germans	Austrians	Total	Russians
East Prussian frontier...	140,000		140,000	160,000
Western Poland and along the Vistula (troops not in touch).....	40,000		40,000	138,000
Galicia	16,000	367,000	383,000	652,000
			563,000	950,000

Operations in West Poland.—The second period began with the attempt of the Germans to assist the Austrians to drive back the Russians in Galicia and recover the lost territory and raise the siege of Przemysl.

During the first period of the operations on the east front, the territory limited by the Vistula River on the north, east and south and the Silesian boundary on the west was occupied by a large force of Russian cavalry only; the infantry was employed mainly in the two invasions. This territory is about the size of the state of Ohio being about 200 miles square. There are few good roads in West Poland and the railways were therefore of great importance as lines of supply.

The German troops near the frontier at once occupied the frontier towns of Kalicz and Czenstochau and toward the end of August a German landwehr corps advanced through Kalicz and a division from Czenstochau to assist the I Austrian Army. In the general retreat across the San these troops remained astride the Vistula and formed the left of the Austrian line.

The Austrian armies behind the Wisloka were more or less demoralized and fearing a Russian advance on Cracow the Austrian G. H. Q. appealed to the German G. H. Q. for assistance. As a result it was decided to send the greater part of the German VIII Army from East Prussia to the Prussian province of Silesia to operate on the left flank of the Austrian Army. This became the IX Army and Hindenburg with his chief of staff, Ludendorff, took personal command of the new army. The remaining troops of the VIII Army intrenched a position between the Nieman and Bohr rivers and the frontier and constructed a second line at the lakes. This army was gradually strengthened by the mobilization of new reserve and landwehr divisions and by the newly organized XXV reserve corps. The IX Army consisted of four corps from the VIII Army, a reserve division, a landwehr corps, and a cavalry division. It was concentrated on the Silesian frontier between Kalicz and Galicia with the cavalry corps on the left.

The general plan seems to have been to advance through southern Poland to the Vistula River and hold it. This would draw Russian forces to this front from Galicia and the Austrians would then be able to relieve Przemysl, and, it was hoped, turn the Russian left and force the Russians to retreat from the San. East of the Vistula and Narew there were only the remnants of Ssamsanow's army which was being reorganized.

The IX Army began to advance from the Silesian frontier in the last days of September and on the 4th of October it was in line with the Austrians on the Wisloka and all moved forward together. The center of the IX Army moved on Ivangorod, the left on Warsaw, and the right on the Vistula above Ivangorod; the left wing of

the Austrians attacked the Russian corps west of the San River, and the right wing attacked the Przemysl investing force from the Carpathian front. As the IX Army moved eastward working parties were detailed to relay the railways to the German gauge and improve the roads which were in an almost impassable condition due to the rainy weather.

While the IX Army was moving eastward, the Russian commander-in-chief, Grand Duke Nicholas, began shifting troops from the East Prussian front and from Galicia to the Vistula front where Siberian troops and other troops were arriving from the interior. The IX Army reached the Vistula about October 12, encountering mainly Russian cavalry en route. South of Warsaw the left wing encountered a Siberian corps which retired on Warsaw. The fortified bridgeheads of Warsaw and Ivangorod were however strongly held by Russian troops. It was the intention of Hindenburg to hold the line of the Vistula while the Austrians on his right drove the Russians back from the San and recaptured Przemysl and Lemberg. The Austrians were barely able to relieve Przemysl and were brought to a standstill on the San. In the meantime, the Russians brought forward their troops from the interior and from Siberia and began to concentrate at Novo Georgievsk, Warsaw, Ivangorod and generally along the Vistula. To meet concentration around Warsaw, the IX German Army was obliged to close toward the north and the Austrians extended their line to Ivangorod and weakened their front.

About the 20th of October, the Russians crossed the Vistula and San and assumed the offensive. Although both the German and Austrian forces had been reinforced, they were now compelled to retreat. With only rear guard actions the IX Army retired almost back to the Silesian frontier, destroying the railways and bridges as it retreated. In Galicia and West Poland, the Austrians retreated almost back to Cracow and lost most of the passes in the Carpathian Mountains.

About the 1st of November, the situation of the armies of the Central Powers on the east front was critical. In the West, the German armies were engaged in the battle of Flanders and could spare few more troops. Four cavalry divisions, the XXV reserve corps and landwehr formations were sent to Hindenburg who was now placed in command of the entire east front. General Mackensen of the XVII corps succeeded to the command of the IX Army. The 10th and 1st Russian armies along the Nieman and Narew rivers had been reinforced and again assumed the offensive;

the VIII Army was compelled to retire across the frontier to the lakes and the Russians were preparing to invade East Prussia as before. The main danger was however in West Poland where the Russian armies were threatening to invade Silesia and separate the German and Austrian forces.

To compel the retreat of these armies, it was finally decided to leave only a screen composed of Austrian forces, landwehr and landsturm troops along the Silesian frontier south of the Warta River and concentrate as large a force as possible on the Polish frontier between the Vistula and Warta rivers and advance southeastward parallel to the river against the Russian right wing. By this means a superiority of forces could be secured for the front of attack. Mackensen was able to concentrate a force of six and a half corps with five cavalry divisions for his offensive.

On November 11, when the campaign opened, the Russian armies had reached the line passing through Wloclawac on the Vistula, Sieradz on the Warta and thence southeastward parallel to the frontier and east of Cracow. A Russian cavalry column had already crossed the frontier north of Kalicz.

The IX German Army attacked the Russian front between the Vistula and the Warta rivers, broke through the front and compelled the right wing of the Russian armies under Russky to retreat. The Russians made a final stand at Lodz and it was not until the middle of December, after the IX Army had been strongly reinforced from the west front after the close of operations there, that the Russians could be dislodged. Russky then fell back to the Bzura and Rawa rivers and there repulsed all attacks. In the southern part of Poland, Ivanov's forces fell back behind the Nida River and in western Galicia, the Russians at the close of the year held the line of the Dunajec River.

An incident of Mackensen's campaign gave the Allies high hopes for a few days. In endeavoring to outflank the Russians in the north at Lodz, the left wing of the IX Army, consisting of three divisions and two cavalry divisions was east and southeast of Lodz when the Russians suddenly advanced northward from Lodz and cut this wing off from the main body. At the same time it was attacked in rear by a strong Russian force advancing from Warsaw. For two days it was believed that this force would be compelled to surrender as it was between hostile forces but it eventually escaped and joined the main body.

The military situation at the end of the year is given by the German Chief of Staff as follows:

	Germans	Austrians	Total	Russians
On the East Prussian frontier	105,000		105,000	320,000
West Prussia	385,000	140,000	525,000	847,000
Galicia and Bukowina	12,000	513,000	525,000	521,000

These estimates cover only combatant troops.

On the whole, the German campaign in West Poland had not improved the situation of the Central Powers on the Russian front and the Russians were stronger and occupied a more advanced position than they had at the end of the first campaign. In East Prussia they occupied all the country as far west as the lakes; in West Poland they had a strong position west of the Vistula; in Galicia they were not far from Cracow and had possession of the Carpathian passes, Przemysl was again invested, and the Russians occupied Bukowina. In view of the stubborn resistance offered by the Russians in West Poland and their successes in Galicia, the outlook for the Central Powers in 1915 did not look promising.

Operations in Serbia in 1914.—War was declared by Austria on Serbia June 28, 1914, and at once Austrian forces began to concentrate on the Serbian frontier.

The Austrian plan was to invade the northwest corner of Serbia; one corps was to cross the Save River at Shabatz and three were to cross the Drina River from Bosnia. The campaign began August 12 and on August 24 the Austrians were back on the frontier. The Austrians only penetrated the mountainous region of northwest Serbia about twenty miles, and being overconfident exposed their columns to separate attacks by the Serbians who were thoroughly acquainted with the country.

On the 1st of November the Austrians again invaded Serbia from the same frontier with two armies. The campaign was made with four active corps and reserve divisions. Resting the left flank on the Save River, the left army of the Austrians fought its way down the river against strong opposition until it reached Belgrade the Serbian capital, which was occupied by the Austrians about the 1st of December. The right Austrian army had a more difficult task, since it was obliged to advance through the mountains with its right flank more and more exposed. After the fall of Belgrade the Serbian commander-in-chief took advantage of this situation and concentrated his troops to attack the exposed flank of the Austrian line which was in the valley of the west branch of the Morava River. As a result the Austrian right was broken and soon the entire right army was retreating through the difficult mountain

roads relentlessly pursued. Eventually the entire Austrian forces retired across the frontier and the Danube and Belgrade was re-occupied by the Serbians December 15.

It is difficult to understand the object of Austria's operations in Serbia during 1914 when she needed all her troops on the Russian front. It was highly improbable that the Serbians would cross the Danube and an invasion of the mountainous provinces of Bosnia and Herzegovina could have been easily defeated by the local corps stationed there. It was to her interest to remain on the defensive on this front.

Turkey.—Turkey entered the war on the side of the Central Powers about the end of October and made a naval raid in the Black Sea. The Russian forces in Caucasia at once prepared to invade Turkish Armenia and the Indian government landed a force in Mesopotamia. The operations on these fronts however belong properly to 1915.

CHAPTER V.

GENERAL PLANS AND OPERATIONS ON THE WEST FRONT IN 1915.

After the close of operations on the west front in the latter part of November, the Germans sent several corps from the west to the east front to drive the Russians in West Poland back across the Vistula. This they failed to accomplish and as the situation on the east front was very unsatisfactory at the close of the year, the German G. H. Q. decided to remain on the defensive in the west where the lines were strengthened and renew the offensive on the east front in 1915.

There were several good reasons for such a course of action. On the west front it would be some time before the British Army would appear in force; the seven regular divisions and three cavalry divisions that had borne the brunt of the fighting in 1914 had lost very heavily and few of the Volunteer and Territorial divisions which were hereafter to form the bulk of the army were ready to be sent to the front. At the close of 1914, the French were still holding all the west front except a short part of the line in Flanders, and until the British extended their line the French would not have sufficient reserves to make a strong attack on any part of the line. Furthermore both the British and French armies were deficient in heavy artillery and artillery ammunition without which the German defenses on the west front could not be broken.

On the east front, the Austrian armies were greatly demoralized and would give way before the Russians in the spring unless they were strongly supported by German troops. The fortress of Przemysl would, unless relieved, be reduced by starvation before spring which would release the Russian investing army. Cracow would be the next objective and the Russians would then separate the Germans and Austrians and could either invade Silesia or move across the mountains into Hungary. There had been many desertions from the Austrian Army; in some cases whole units had surrendered without cause, because the races from which they were drawn had no sympathy with the Austrian government. This was having a discouraging effect on the entire army.

The military situation on the east front was bound to have a great influence on the governments of the Balkan states that were still neutral, with all of whom negotiations were in progress by

both the Allied and Central Powers. Should the Balkan states join the Allies, Turkey would be wholly cut off and would be compelled to surrender. This would open the Dardanelles and permit Russia, which was also deficient in ammunition and heavy artillery, to receive supplies by that route. At present these could reach her only through Archangel and Vladovostock.

It was not the intention of the Germans to remain wholly on the defensive in the west, but the offensive operations were to be conducted on narrow fronts, mainly at Ypres and in the Argonne Forest.

Both the French and British expected that the principal advance in 1915 would be made by the Russian armies. It was expected that the Russian Army would be concentrated in full strength on the east front by the spring, and the great Russian steam roller—as it was popularly called—would crush all before it and advance into Germany and Austria. It was recognized that there was a deadlock in the west not easily broken and perhaps the best the Allies could hope for was to assist the Russians by preventing the Germans from transferring many troops from this front.

The principal task of Great Britain was to raise an army commensurate with the requirements of the war. Strenuous efforts had been made by Lord Kitchener, who was placed in charge of the War Department at the beginning of the war, to recruit, equip and train forces for foreign service, but time was essential. From the overseas garrisons, troops of the Regular Army were brought back to England to form the greater part of four additional divisions. The divisions of the Territorial Army intended primarily for home defense were recruited, equipped and trained for foreign service. From volunteers recruited for the war there were formed the divisions of the New Army. Additional troops were organized in India, Canada, Australia and New Zealand and South Africa. Lord Kitchener, who looked for a long war, had decided to place in the field at least seventy divisions which was a force equal to the forty-five divisions of the active French Army and the twenty-five divisions of French Reserves available at the beginning of the war.

During the winter of 1914–1915, the 8th regular division of the 4th British corps reached the front, and to reinforce the first seven divisions, in addition to replacements from the Army Reserve, a battalion of new troops was sent to each of the brigades. Toward the end of winter two additional divisions of Regulars and the 1st Canadian division were sent; in the spring divisions of the New Army and Territorials followed.

The outbreak of war with Turkey about the 1st of November, 1914, had somewhat diverted the attention of the British government from the west front. The suzerainty of Turkey over Egypt was declared terminated and it was constituted a British protectorate. It became necessary therefore to strengthen the British forces there. Troops were sent to Egypt from India, the Anzac corps was sent from Australia and New Zealand, and a Territorial division was sent from England. The Indian government also sent an expedition to the mouth of the Tigris River in Mesopotamia to protect the British oil fields in southwest Persia. The British Navy sent a fleet to blockade the Dardanelles which bombarded the forts at the entrance in November, 1914.

Because of her millions of Mohammedan subjects, it was very important for Great Britainto compel the Turkish government to make peace. This would be most easily accomplished if the Balkan states Rumania, Bulgaria and Greece would unite with Serbia and form a league against Turkey. Negotiations to this effect were begun with Bulgaria, Greece and Rumania and it was naturally argued that successful operations against the Turks in connection with the Russians on the east would have a great effect on the neutral Balkan states. There arose therefore two parties in the British cabinet: those who considered that the west front in France was the important front upon which all the available British troops should be concentrated and the troops in Egypt should be just sufficient for defense, and those who considered that offensive operations against Turkey gave greater promise of results than those on the west front. The government naturally took a mean course between the two plans advocated. The British force in France was reinforced, but operations were also undertaken against Turkey.

The French plan for operations was to keep the Germans engaged all along the west front to prevent troops from being sent to the east front, and, as soon as the British extended their front, to employ the French reserves in attacks in the north between Lille and Arras in connection with the British, and in Champagne east of Reims. If the German line could be broken at either of these points, the Germans would have to evacuate a great part of the French territory they then occupied.

Operations on the West Front.—At the beginning of 1915 the opposing armies on the west front were intrenched from the Channel to Switzerland. As a result all operations on this front were of the nature of siege operations. Occasionally an attempt would be made to advance on the wide front after a more or less prolonged

preparation by artillery fire, but along the remainder of the line and between these attempts the operations were confined to small fronts on which the troops made their advance by the process of sapping, mining, night attacks, surprise, etc. The object of these smaller operations was to harass the enemy and keep up the fighting spirit of the troops by the capture of a short line of trench, an advance post, a wood or a village. It became a kind of a war of attrition.

In this trench warfare, many old methods of warfare were resurrected and new ones were introduced. Improvised hand-grenades, trench mortars, and periscopes soon made their appearance, to be replaced by more effective types as soon as they were invented and manufactured. Machine guns, originally two per battalion, made their appearance in increasing numbers as did field and siege mortars. High explosive shells replaced shrapnel in increasing proportions. The field artillery, with which the war was mainly begun by the Allies, was reinforced by heavy mortars and guns in ever increasing numbers. Underground shelters of all kinds were introduced, from those that would protect from splinters only, to the deep out-and-cover and mine shelters proof against the siege and heavy mortars. Successive lines of intrenchments were constructed connected with each other and with the country far in rear with deep communicating trenches. Telephone wires were strung along the trenches, so that constant communication could be preserved throughout the front line and reserve unit of infantry and artillery, and the various command posts in rear. Wire entanglements were constructed on an unprecedented scale, paralled, oblique and perpendicular to the front. Every possible device that could be thought of was utilized to strengthen the defense and further the attack.

This trench warfare necessitated a change in the organization of the armies. It was found that the permanent type of organization which existed at the beginning of the war, in which as a rule each corps was composed of two permanent divisions, would no longer suffice. Divisions had to be withdrawn from the front after every great attack and sent either to rest areas or to quiet fronts. In both the German and French Armies, in order to increase the number of divisions, the divisions were generally reduced from four to three regiments and at the same time the artillery of the divisions was increased. The corps was now composed of a number of divisions suitable to the front it was required to hold and these were not always the same divisions. The number of corps in an army was also varied with the front to be held and the armies them-

selves were combined into groups. In the French Army in addition to the northern group under General Foch, the eastern group under General Dubail and the central group under General Castelnau were created. Heavy guns were added to the corps and army artillery.

New organizations, such as trench mortar sections and companies, were introduced and the machine gun companies were largely increased. Many infantry battalions of the French Army were obliged to give up one of their companies to form these new units. For trench warfare a new system of tactics was introduced. The infantry was also equipped with a small type of cannon for combatting machine guns.

The air service, which began mainly with small scouting planes, dirigible and fixed balloons, developed rapidly by the introduction of aerial photography, bombing planes, artillery observation planes, fighting planes and their organization into squadrons.

For the movement of supplies and troops, motor transport was developed on a gigantic scale, and light railways were constructed to carry supplies between the rail heads on the standard gauge railways and the advance depots or dumps.

These changes were introduced and gradually developed with the continuance of the deadlock on the west front during succeeding years.

It would be impossible to touch upon all the operations on the west front in 1915, and therefore only the more important ones will be mentioned. The principal operations were perhaps the German attacks on the Ypres salient and in the Argonne, and the combined British and French attacks in March, May and October.

The Battle of Neuve Chapelle.—The battle of Neuve Chapelle was the first attack made by the British Army on the enemy's intrenched line. In March, 1915, the British force in line in France consisted of five British and one Indian corps, consisting of ten divisions of regulars, the 1st Canadian division and the two Indian divisions. It was organized into two armies of three corps each under Generals Haig and Smith-Dorrien, and held the line from a point northeast of Ypres to the 10th French Army south of the Bethune–Bassee canal.

The main attack was to be made by the 4th and Indian corps of the 1st Army on the German line on the Auber Ridge west of Lille with its advance line through the village of Neuve Chapelle. The village was first to be taken and then the reserves were to advance on Aubers Ridge. The attack on the village was to be preceded by

bombardment of field and heavy guns, most of the latter furnished by the French.

After a severe bombardment of the advanced trenches of about thirty-five minutes, the guns were turned on the village and the infantry advanced to the assault. It was thought that the bombardment had destroyed the enemy's wire entanglements entirely, but one of the three brigades in the attacking party found itself stopped under fire and was unable to advance. The German artillery fire had cut many of the telephone wires upon which the British commanders relied for directing operations and they lost control of operations. As a result the British troops were able only to capture the village of Neuve Chapelle which they held against all counter-attacks but were unable to reach the main German position on Auber Ridge. The losses were very heavy for the slight advance made but the lessons of the attack were valuable.

The French made an attack north of Arras at the same time and captured some lines of trenches but the details are not known.

German Attacks on Ypres.—The principal attack on the Ypres salient began in April and closed in May of 1915. At that time the British 2d Army, consisting of the 2d, 3d and 5th corps held the line on the east and south of Ypres to and across the Lys River. The French 8th Army held the line north of Ypres to Dixmuide where the inundated area began. The left of the British line was held by the Canadian division of the 5th corps and the right of the French by a native Algerian division. It was the first attack in which gas was employed by the Germans. It is probable that a gas attack had been planned on the entire front of the Ypres salient, but the direction of the wind, being from the north, was such that it could be utilized only against the east and west line north of Ypres, which was held mainly by the Algerian troops.

Preceded by a cloud of chlorine gas released from cylinders, the attack was made late in the afternoon of April 22 and in a short time the entire Algerian division was either overcome by the gas or had evacuated the lines and taken refuge behind the Ypres canal. Had the attack been quickly followed up, it is possible that Ypres might have been taken, but this was not done and the French and British commanders were able to close the gap before the Germans had penetrated far enough to compel the evacuation of the lines east of the town. The struggle thus initiated lasted about a month. The British were compelled to withdraw their line closer to Ypres and at one time the Germans were across the canal north of Ypres. They were however later driven back across the canal by the

French. Toward the end of May the pressure of the British and French farther south compelled the Germans to cease their attacks. South of Ypres the Germans made no advance although gas attacks were made in this sector after the attack in the north. The Canadian troops distinguished themselves in checking the advance of the Germans in their first attack north of Ypres.

Battles of Festubert and Artois in May.—The battles of Festubert and Artois were the joint efforts of the British and French to pierce the German intrenched line from the west of Lille and north of Arras. They were also designed to relieve the pressure on Ypres and test the German line in the west from which troops had been sent to reinforce the Russian front where a great attack by the Austro-German armies had just been begun.

The British attack was made by the 1st Army north of the Bassee–Bethune canal to capture the German line west of Lille. The attack began about 6 a. m. May 9th after a preliminary bombardment of nearly an hour. Although one of the corps reached its objective, the other two were held up by the German second line, which had not been sufficiently destroyed by artillery and all the troops were withdrawn that night. On May 15 the attack was renewed south of Neuve Chapelle around Festubert by a night attack. Some progress was made and the battle was continued up to the 20th when the position gained was finally consolidated. In his report General French states:

"In the battle of Festubert, the enemy was driven from a position which was strongly intrenched and fortified and ground was won on a front of four miles to a depth of 600 yards."

The French attack was made on a salient in the German lines terminating in the villages of Carency and Ablain St. Nizaire, west of the Arras–Bethune road, whence the lines ran northeastward to the vicinity of Loos and southeastward to a village east of Arras. The attack on this 10-mile front was made under the personal supervision of General Foch by the 10th French Army of about seven corps under the command of General d'Urbal who had been in command of the 8th French Army north of Ypres. Over 1,000 pieces of field, heavy and trench artillery had been assembled for this attack and about 300 rounds per gun had been provided for the opening bombardment. The German lines were unusually strong, and besides the fortified villages there were in places three to five successive lines. Mines were constructed to blow up parts of the German lines.

At 6 a. m. May 9, the same day the attack was begun by the

British farther north, the French artillery opened and the mines were blown up. For three hours an intense fire was kept up at the end of which time the infantry attack was launched. It was reported that 20,000 shells had been fired into the village of Carency. Notwithstanding the heavy bombardment the progress of the attack was slow because of the strength of the intrenched positions. Although some parts of the line were carried in the first assault the battle soon developed in a series of assaults on isolated positions followed by regular siege operations. Carency was taken on the 12th. Ablain St. Nizaire was not wholly captured until the 28th, and the struggle continued on through June. At the salient, the French lines were advanced about two and a half miles but the attempt to make a break in the German line had failed. In this kind of warfare the casualties are necessarily heavy on both sides as attacks are usually followed by counter-attacks.

Battles of Loos, Artois and Champagne in September.—During the summer, plans were made for a simultaneous attack by British and French troops in the vicinity of Lens and between Reims and the Argonne in Champagne, in order to relieve the pressure on the Russian armies and if possible to break the German lines in the west. The 1st and 2d British armies had now relieved all the French forces from a point northeast of Ypres to a point west of the town of Lens, and the 3d British Army had relieved the 2d French Army on the right of the 10th French Army in the basin of the Somme valley.

In the simultaneous attacks in the north, the main British effort was to secure the ridge occupied by the German lines to the north of Lens, and the main effort of the 10th French Army was to secure the ridge occupied by the Germans south of Lens, where they had attacked in May. If the attacks were successful, the important mining town of Lens would be retaken and the Allies could press onward in the direction of Douai.

In the previous attacks made by the British Army, the Germans had been able to concentrate troops for counter-attack very quickly because the attacks had been made only in one place. The main attack of the 25th of September was to be combined with simultaneous minor attacks at Ypres, Armentieres, Neuve Chapelle and along the north side of the Bethune–Bassee canal and with bombardments along the Belgian coast by the British fleet. These demonstrations it was thought would prevent the Germans from sending local reserves from these points to the main point of attack.

The 1st Army, assigned to make the main attack, was composed of three corps of three divisions each, two corps in the first line and one in reserve. In the main attack between Lens and the Bethune-Bassee canal on a front of about ten milies there were five divisions in the front line. The British and Indian cavalry corps were assembled in rear to take advantage of any break in the enemy's line. A new feature in the British attack was the use of gas and smoke clouds.

The German line to be attacked was a very strong one on which the Germans had been at work for nearly a year. It consisted of several lines of trenches, all well wired, organized villages, redouts, etc., and was provided with well constructed shelters. The whole position was organized for strong defense with machine guns. It was much stronger than any position heretofore attacked by British troops.

In order to make use of smoke and gas it was necessary to wait for a favorable wind. On September 24, the wind which had been in the east, veered to the west and the attack was set for the 25th. The west wind however was accompanied by rain which interfered with artillery observation. The artillery opened on the morning of the 24th and the bombardment was kept up all day. At night machine guns and field artillery kept the German trenches under fire to prevent their repair.

On the morning of the 25th, the artillery again opened at 4:30 and kept up its fire for two hours. At 5:30 the smoke and gas clouds were released but during the night the wind had changed into the southwest and it was evident that as a screen the cloud would be less effective than had been hoped. At 6:30 the infantry attack was launched from the trenches one hundred to five hundred yards from the enemy's line. The artillery was then for a half hour turned on the enemy's rear positions while the infantry advanced.

On their left, the British encountered strong resistance and made but little progress; in the center, they were more successful and advanced farther, but were unable to reach their final objectives; on the right the troops captured the town of Loos and actually passed beyond their final objective, which was a hill overlooking Lens on the north, but they failed to organize it for defense and were later compelled to give it up as there were not sufficient reserves on hand to hold it. Loos, however, remained in the possession of the British. Two divisions of the general reserve, which were far in rear, reached the field that night and took up the attack on the following day but were unable to carry the line forward. On the following day,

the British Guard division of the general reserve was engaged and later a division withdrawn from another part of the line. By this time, however, the Germans had been able to reinforce the line and the attack was practically over October 1, when, because of the heavy losses in the British force, a French corps took over the lines about Loos. The Germans made a strong but unsuccessful counter-attack about a week later.

Along a part of their front the British had advanced about two miles and in the vicinity of Loos they were within two miles of Lens; they had, however, been unable to compel the Germans to evacuate Lens. The casualties on both sides were heavy, those of the British were later given as 60,000.

After the battle of Artois in May and June, in which the villages of Carency and Ablain St. Nizaire and the German line to the north and south were captured, operations by the 10th French Army in this section partook of the nature of regular siege operations.

About two miles east of Carency on the Arras–Bethune highway was the village of Suchez, and between them the cemetery and a sugar refinery. On the southern outskirts of Suchez was a chateau and a small inn. All of these positions had been strongly organized by the Germans and their possession had been strongly contested for months. It was this small group, covering an area of about one square mile, which was the objective of the siege operations.

The September attack in Artois of the 10th French Army, about the same strength as in May, was preceded by a five days' bombardment of the German lines; the infantry attack was launched on the 25th several hours after the British attack farther north. In the three days' attack the French succeeded in capturing Suchez and advancing their lines to the north and south but they failed to secure Vimy Ridge which was their objective, and they were not in a position to attack Lens from the south or compel the Germans to evacuate it as had been hoped.

The greatest French attack on the west front in 1915 was the September attack in Champagne between Reims and the Argonne, where the 4th French Army was facing the III German Army. In the spring of the year General Castelnau was relieved of the command of the 2d Army north of the Oise by General Petain and was placed in command of the armies between the Oise and the Meuse. It was under his supervision that the preparations for the attack were made during the summer, and it was under his direction that it was executed. The Army of General Petain which was relieved by the 3d British Army in the summer was also moved to this front to assist in the attack.

The German trenches attacked covered a front between fifteen and sixteen miles and a depth of from two to three miles. They had been constructed on a ridge more or less broken by ravines and covered with woods which had a general slope toward the French lines in front. The first line consisted of a network of trenches and approaches having at least the usual front line, support and reserve trenches, each protected by its wire entanglement. The second line could not be seen from the front, as it was on the rear slope of the ridge near the summit, but it was almost as strong as the first line. The area between the two lines was nearly everywhere organized for defense with wired redouts, machine gun positions, auxiliary trenches, underground shelters, trench mortars and batteries. The heavy batteries were behind the second line.

The preparations for the attack naturally took a considerable time, so the attack could not have been a surprise.

The nature of the attack may be judged from the following extracts from the French descriptions of the attack:

"For three days our guns bombarded the German positions. We set at work the latest types of our artillery and we have seen in the captured trenches their fearful effects. On certain points the leveling was complete. The entrances of underground shelters were filled up; as to the wire entanglements, they were either broken or swept away.

"Our fire covered the entire extent of the first position while our long range pieces reached the roads, railways and railway stations (in rear). Thus certain German units were cut off from their supplies and remained for forty-eight hours without provisions.

"The moral effect was not less powerful; even the pauses in the bombardment added to the nervousness of the enemy who released uselessly his barrage and rifle fires.

"The clearness of the air on the 22d and 23d permitted precision in directing the fire by ground and aerial observation. The 24th was cloudy but not so dense but that the aviation service could carry on its work.

"On the 25th the rain clouds were very low. At 9 o'clock it began to rain. At 9:15, the hour fixed, the assault took place.

"This human wave, which on this front of 25 kilometers, with the same movement and with the same spirit threw itself on the enemy's trenches and covered them, comprising Frenchmen from all parts of France. * * * * * Zouaves and rifles represented northern Africa."

Unfortunately this attack met the fate of all other attacks thus far made by the Allies on the west front. In some parts of the front the trenches were so well battered that the attack penetrated far into the position without opposition, only to be taken in flank by machine guns and counter-attacks from neighboring sectors in

which the front line or some intermediate had not been made passable. At the end of three days it was definitely known that the attack had been held up in the most advanced parts by the German second line, whose thorough organization had not been suspected; in other parts the second line was not reached. Although progress was made in some sections long after the main attack ceased on September 28, the attack practically ended on that day.

On October 5, General Joffre reported the capture of about 25,000 prisoners and 150 guns. The French casualties were however very heavy.

Of the September attacks by the British and 10th French armies on the VI German Army, and the 4th French Army on the III German Army, General Falkenhayn, Chief of Staff of the German armies, says:

"In Flanders and Artois, on the front of over 50 miles as the crow flies, the VI Army of Crown Prince Rupert of Bavaria, held the line with sixteen divisions from the south of Ypres, immediately east of Armentieres, west of Lens, east of Arras, to a point 10 miles from the latter town.

In Champagne, the III Army under General von Einem, with seven and a half divisions, held on a front of fully 30 miles, positions which ran from the north of Reims to Messiges. In touch on the left, extending to the Argonne, was the right wing of the V Army of the German Crown Prince with two divisions in line.

On the 21st of September drum fire began against the VI Army, and on the 22d against the III Army and right wing of the V Army, of an intensity similar to that which we had for the first time employed on a large scale at Gorlice-Tarnow. (In Galicia in May, 1915.)

Reinforcements from the scanty general reserve had already been sent the threatened armies and were now sent in greater numbers. The III and VI armies received heavy batteries and one infantry division each, the III Army having a brigade of infantry in addition.

The bombardment raged with almost undiminished fury in Champagne until the 24th, and in Flanders until the 25th of September. On those days the infantry attacks began on both fronts.

Although the terrible gunfire had caused hitherto unheard-of destruction both in and far behind our positions, in addition to very heavy losses in men, the French were unable to gain any vital advantage on the 24th in Champagne. The British, on the other hand, by the employment of gas, succeeded in occupying our foremost positions at Loos over a breadth of 7½ miles. They were however unable to develop their success. Incessant counter-attacks of the brave defenders not only prevented this, but also recovered substantial portions of the lost positions. The French, who attacked the VI Army on both sides of the Scarpe in conjunction with the British, achieved no success worthy of mention.

The position in Champagne on the 25th of September was much more serious. Continuing their offensive, the French on this day, on the east of the Souain–Somme Py road, with seventeen divisions, drove the remnants of two German divisions, on a front of 15 miles with a depth of 2½ miles, back to their rear positions, which unfortunately had been shot to pieces. A serious crisis arose, leading the Staff of the III Army to consider the advisability of a further withdrawal of the whole army front. Such a step would of necessity lead to very serious consequences, firstly, in the moral effect which would inevitably be general; secondly, in the tactical results on the neighboring fronts, and finally, by giving space to the enemy masses, which were crowded helplessly together against our present positions, to escape from their momentarily intolerable situation.

Fortunately the proposed withdrawal was never carried out. On the urgent advice of the Chief of Staff of the neighboring V Army, the consideration of the matter was adjourned until the arrival of G. H. Q., who were on their way to the western front, and after their arrival at noon on the 25th of September, there was no further question of any voluntary withdrawal. There were still reserves available. They at once threw into Champagne one of the last divisions of the general reserve from Alsace and the X Army corps, the Guard corps going to the VI Army. Both these corps had just reached Belgium from the East. In addition, the forward reserves of General von Heeringen's VII Army, on the Aisne, where it was clear that no attacks were in prospect, were withdrawn and sent to the III Army.

This additional strength sufficed to some extent to break the weight of the enemy's first attacks on the fighting fronts, but was insufficient to repel the whole offensive which lasted for many days. The heavy fighting wore down the strength even of formations freshly thrown in, all the more quickly because heavy rain had set in on the evening of the 25th turning the shell-torn battlefield into a marsh. True the difficulties thus caused were no doubt even more noticable in attack than in defense. The enormous numerical superiority against which we had to contend is well illustrated by the fact that there were thrown against the III Army no less than 25 divisions, with 2,000 heavy and 3,000 field guns. Behind them were many cavalry divisions, of which considerable proportions actually took part, ready to attack.

Accordingly in the first half of October, G. H. Q. had many worn troops replaced by fresh divisions drawn from quiet sectors of the front, until the arrival of further forces from the East relieved them of the task. Apart from the modest initial successes above mentioned, the enemy had no further advantages worthy of record to record. The fighting did not, however, die down in Flanders until the 13th, or in Champagne until the 20th of October."—General Headquarters, 1914–1915—General von Falkenhayn.

This statement of the German Chief of Staff shows how nearly the French came to penetrating the German front in Champagne in 1915.

The Argonne.—To the east of the Champagne battlefield, between the Aisne River and its tributary the Aire, is the Argonne ridge or forest, five to eight miles in width east and west and twenty-five miles long, extending southward from Grandpre. When the German armies retreated from the Marne in 1914 the French 3d Army secured possession of all but the northern end of the ridge which was held by the Germans. As the possession of this ridge was essential to operations against the fortress of Verdun, as early as September, 1914, the V German Army began operations to drive the French southward. The French position was strongly organized and the operations were conducted in a manner similar to a regular siegė, the advance progress being measured by yards. It was in the Argonne that the methods of trench warfare were first developed by the employment of hand grenades, trench mortars, saps and mines. In the earlier stages artillery was not employed, but later artillery was also employed. During 1914 and 1915 the Germans succeeded in gaining about one half the ridge and reached a position around Vauqois from which they could observe and take under fire the double-track railway running west from Verdun.

St. Mihiel Salient.—During 1915 the 1st French Army reinforced by several corps in the spring made a desperate attempt to drive the Germans out of the St. Mihiel salient by attacks at various points between the Meuse and Moselle on the south side and between the Meuse and town of Etain on the north side. The fighting was particularly severe in Apremont woods near the Meuse and in the Pretre woods along the Moselle near Pont a Mousson on the south, and at the village of Eparges on the north. No material changes were effected in the general line.

Vosges Front.—The French troops on the Vosges front were again organized in the spring of 1915 into the 7th French Army under General Maud'huy and were engaged during the year with some success in securing a more thorough mastery of the mountain crest and the passes. The 1st and 7th armies with the fortresses from Verdun to Belfort were under the command of General Dubail.

On the whole the operations on the west front in 1915 did not result in any material change of the lines as they existed at the close of 1914. Neither the Allies nor the Germans were able to make any substantial gains on this front due to the thorough way in which the lines were intrenched. During 1915, the defense was stronger than the offense and a practical deadlock existed. The allies however were making studies of the tactics, equipment, etc.,

for breaking this deadlock. With each month the strength of the British Army increased and the artillery arm of the Allies became more powerful. The air services were also becoming more effective.

In September, 1915, at the time of the great attacks, German G. H. Q. estimated the combatant strength of the Germans on the west front as 1,970,000 and the Allies as 3,250,000. No data is given upon which the estimates are based.

CHAPTER VI.

OPERATIONS ON THE RUSSIAN, SERBIAN AND ITALIAN FRONTS IN 1915.

Winter Operations in East Prussia.—As a result of the transfer of the best troops of the VIII German Army to Silesia and the reinforcement of the Russian Armies on the Nieman and Narew rivers in September and October, 1914, the Russian Armies again advanced from their base on these rivers in the latter part of October, 1914, and at the close of the year the 10th Russian Army in the north occupied a line running north and south through the Masurian Lakes from the Nieman River on the north to the Narew River between Lomza and Ostralenka on the south. The 1st Russian Army occupied the greater part of the territory between East Prussia and the Vistula River.

During the autumn of 1914, the Germans organized three new reserve corps, the XXXVIII, XXXIX and XL, to reinforce their forces in East Prussia then consisting of the I and XXI corps with a number of Landwehr divisions. The IV cavalry division was also sent from the west to reinforce the cavalry. From the forces in East Prussia, General Hindenburg organized the VIII and X armies each consisting of about four corps and a cavalry division and made plans for driving the 10th Russian Army out of East Prussia and across the Nieman and Bohr rivers. As operations on a large scale were impracticable in this territory until the ground was frozen when it might be deep in snow, thousands of sledges were assembled and preparations made for mounting the ordinary transport wagons on runners.

As in the Tannenberg operations, the plan contemplated the encircling of the Russian Army by attacks made on its extreme right along the Memel or Nieman River by the X Army and south of the lakes through Lyk by the VIII Army; the left and center of the VIII Army was to advance eastward through the lake region. The attack was begun by the VIII Army south of the lakes on February 7 and was taken up by the X Army on the following day. The campaign lasted two weeks and was carried out in severe winter weather with frequent blinding snow storms which rendered the operations difficult for both sides. The Russians made a desperate but unsuccessful defense and a number of divisions were eventually surrounded in the Augustowa forest where a large number of troops

were captured and the remainder retreated across the Nieman and Bohr rivers. The Germans took over 100,000 prisoners including a corps and three division commanders and 300 guns. The Russians were pursued to the Nieman and Bohr rivers, whose bridgeheads again saved them. The Germans brought up heavy guns and attempted to capture fortified bridgeheads at Ossoviec but were unsuccessful. They again intrenched a line between the Nieman River and the East Prussia boundary. The battle with the 10th Russian Army is known as the second battle of the Masurian Lakes.

While the operations against the 10th Russian Army were in progress, one or two German corps advanced into the territory between East Prussia and the Vistula against the advanced detachment of the 1st Russian Army there. The Germans reached the line Plock–Prasnysz in this sector, intrenched in the winter of 1914, but were unable to reach the Narew River as the 1st Russian Army was too strongly intrenched in its front. At the close of the operations General Russky was relieved of the command of the north front by General Alexiev who had been in command of the 9th Army in the south.

Winter Operations in the Carpathian Mountains.—When the Russians made their last advance in Galicia in 1914, the 8th and 9th armies secured all the passes in the Carpathian Mountains as far west as the Dukla Pass at the headwaters of the Wislok River southeast of Tarnow, and north of the mountains the 3d Army advanced almost to Cracow. The 3d Army was later compelled to retreat to the vicinity of Tarnow, where it intrenched a line between the Vistula and the Carpathians. The fortress of Przemysl where the Austrians had left a large garrison was again invested. General Ivanov had besides the armies mentioned above, the army of investment at Przemysl and the 4th and 5th armies on the Nida River in West Poland.

The Austrian G. H. Q. considered it very essential that the passes in the Carpathians should be wrested from the Russians both to permit the relief of Przemysl and to prevent Russian columns from invading Hungary in the spring. As the Austrian armies were alone unable to accomplish this the German G. H. Q. sent to Hungary three divisions withdrawn from the west and formed the Austro-German Carpathian Army under German command.

The Carpathian Mountain range between Galicia–Bukowina and Hungary is a wide range whose peaks and passes are about half the elevation of those in the Alps. The lowest part of the range is that called the Beskides, which, in a length of about one hundred miles,

contains the Dukla Highway Pass, the Lupka Pass on the railway to Sanok, the Uzsok Pass on the railway to Sambor, the Verezcke or Beskides Pass on the railway to Strij; farther east is the Delatyn Pass on the railway to Halicz and Kolomea. In addition to the main passes there are numerous minor passes in this range. A railway also runs through the Stiol Pass in the mountains between Hungary and Bukowina and there are also several minor passes in this part of the Carpathian range.

At this time the 8th Russian Army, under General Brusilov, was occupying the mountain passes from the Dukla Pass on the west, where there was one or two Russian corps already on the south slope of the mountains, eastward to include the Lupka, Uzsok and Beskide passes. The 9th Russian Army extended the line eastward holding the passes through which the railways ran to Haliez; a detachment of this army occupied Bukowina.

The III and II Austrian armies in the Carpathian Mountains were assigned the task of recapturing the range including the Dukla, Lupka and Uzsok passes while the Austro-German Carpathian Army was assigned the task of retaking the range including the Beskide and Delatyn passes. The VII Austrian Army was assigned to the task of driving the Russians out of Bukowina.

The winter campaign of the Central Powers was only partially successful. The Austrians were barely able to recapture the Lupka and Uzsok passes and were unable to advance from them to relieve Przemysl. The Russians south of the Dukla Pass could not be dislodged. The Austro-German Carpathian Army was more successful but did not make much progress north of the mountain crest. Bukowina was recovered as far as the Pruth River.

At the close of the winter operations in the Carpathian Mountains the situation in Galicia was still very unsatisfactory to the German and Austrian G. H. Q., as it was realized that Przemysl would soon fall releasing the investing army, which would probably reinforce the Russian armies in the Carpathians and enable them to retake the passes. In Italy there were strong indications that the country would soon enter the war on the side of the Allies and compel the transfer of troops to that front.

It was essential to strike a decisive blow at the Russians in Galicia and it was realized that this blow must be struck by selected troops under an able commander. General Mackensen, who had been in command of the XVII corps and then of the IX Army, was selected and he was given the XI Army consisting of troops transferred from the west front in the latter part of April. These were the

Guard corps, the X corps and two reserve corps, to which was added an Austrian corps. The blow was to be struck at the 3d Russian Army occupying the line between the Vistula River and the Carpathian Mountains and in the southern part of its line to compel the Russians to evacuate the mountain passes and permit the Austro-German armies south of the mountains to cooperate in the campaign.

At this time the 3d Russian Army, under General Dmitrieff, occupied the east bank of the Dunajec River from the Vistula southward beyond Tarnow and thence the line crossed over a high ridge of hills to the Biala, a tributary of the Dunajec, at Gromnik. From Grommik the line followed the east bank of the Biala to Bobova and thence again crossed a high range of hills to the Ropa River, a tributary of the Wisloka, and thence to the Carpathians. The line had been occupied for about four months and had been organized in the customary way with trenches and wire entanglements, but did not compare in strength with the lines constructed on the west front at the same time. There were few overhead shelters to protect against howitzer fire, few machine gun emplacements, and the entanglements were of inferior construction. The strength of the first line consisted in the successive lines of shelter trenches on the slopes of the hills.

The Russian position extended backward as far as the Wisloka River, twenty miles to the east, but there were no continuous lines in rear of the first. The second, third and fourth lines consisted of isolated heights organized for defense. The entire position was intersected by two railways, one running east from Tarnow and the other from Grybow to Jaslo. This latter followed the deep valley of the Ropa River. It was along this latter railway in the foothills of the mountains that the main blow was to be struck.

Operations in Galicia March to June.—The fortress of Przemysl surrendered about the middle of March and the investing army was sent to the 8th Russian Army which captured the Lupka and Uzsok passes. This compelled the Germans to send three additional divisions to the Austrian Army on that front; these divisions formed the German Beskide Corps . With these reinforcements the Russian advance was checked just as Mackensen was ready to attack.

In the latter part of April, Mackensen's XI Army relieved the Austrian troops and was deployed along the front of the left wing of the Russian 3d Army between the Dunajec River and the Carpathian Mountains; the IV Austrian Army extended the line northward along the Dunajec to the Vistula. The IV and XI armies were

probably stronger than the 3d Russian Army and were well equipped with heavy artillery to destroy the Russian defenses.

On the afternoon of May 1, Mackensen's artillery opened the most intense fire that had thus far been employed on any front. The weather conditions were favorable for his air service and for ground observation. The Russian defenses crumbled under the overwhelming fire and the batteries were silenced. The fire was kept up during the night to prevent the Russians from repairing their works, with intervals of cessation to allow the engineers to cut the wire entanglements. At 6 a. m. on May 2 an intense bombardment was kept up for four hours and then the range was lengthened and the infantry assault was launched. On that day Mackensen's army penetrated the Russian first line to a depth of two and a half miles on a front of ten miles. The Austrians attacked on his left in the hills south of Tarnow between the Dunajec and Biala rivers. That night the IV Austrian Army by moonlight crossed the Dunajec between Tarnow and the Vistula and secured a bridgehead. The Russians fought stubbornly, and had they had a good second line upon which to retreat, Mackensen might possibly have been held until reinforcements reached them, but in their isolated second, third and fourth positions they were unable to prevent his advance. By May 4, the entire Russian 3d Army was in full retreat for the Wisloka River pursued by the Austro-German armies.

The Russians made no attempt to hold the line of the Wisloka, but destroyed its bridges and retreated eastward leaving strong rear guards to cover the retreat. Having bridged the river the two Austro-German armies crossed the river on the 6th and took up the pursuit. Mackensen's right wing found the bridge at Zymigrod intact and crossed on the 5th and cut off the retreat of part of the Russian forces that had been south of Dukla Pass and were now trying to withdraw pursued by the left wing of the III Austrian Army which was on that front.

The 8th Russian Army now began to withdraw also from the Lupka Pass to concentrate in the vicinity of Sanok. This released the right wing of the III Austrian Army and German Beskide Corps at that pass, which also took up the pursuit.

From the Wisloka River and the Carpathians the Austro-German armies advanced to the line Rzeszow–Sanok, which was reached on the 11th after severe fighting, especially in the vicinity of Sanok where the Russian Army made a strong stand. The left wing now advanced to the San River between Jaroslau and its mouth, while the right wing advanced on Przemysl and Sambor. This compelled

the 8th Russian Army to evacuate the Uzsok Pass and released the left wing of the II Austrian Army there, which took up the pursuit. On May 15 Mackensen's troops captured Jaroslau and the right wing entered Sambor. In two weeks he had advanced about eighty miles.

Between the 15th and 28th of May Mackensen's army secured both banks of the San River for a stretch of twenty miles north of Jaroslau and began to throw bridges across the river. Any further advance required the capture of the strong bridgehead at Radymno, a short distance above Jaroslau, and the fortress of Przemysl in order to secure the right flank of the advancing armies. This necessitated the bringing up of the heavy howitzers and nearly a week was employed in organizing the lines of supply from the rear and bringing up these guns. In the meantime the 8th Russian Army had withdrawn from the Uzsok Pass and took up a strong position around Strij. This released the right wing of the II Austrian Army and it also took up the pursuit.

The bridgehead at Radymno was bombarded on the 23d and taken on the 24th; the attack on Przemysl was begun on the 29th and the fortress was evacuated by the Russians by June 2. Strij was taken by the Austrians about the same time and the Russians retired to the Dniester River.

To relieve the pressure on the Russians in Galicia, Italy declared war on May 23 just as the attack on Radymno was begun. This compelled the Austrians to detach divisions to that front and also to send troops from the Serbian front; the latter were replaced by German troops. The Italians were unable to save the situation in Galicia but the absence of the Austrians sent from the Galician front was felt later in the campaign.

Due to the losses suffered by Mackensen's troops and the reinforcements received by the Russian armies from Caucasia, Turkestan and from the Vistula, it became necessary to reinforce his army before a further advance and two and a half additional divisions were sent him from the west front. Although the Russians had suffered severe losses, they had been able to protect their flanks, and the losses after the first attack had been due mainly to rear guard actions. The 9th and most of the 8th Army were still intact and with the reinforcements received were still capable of strong resistance.

With the fall of Przemysl and the bridging of the San River the Austro-German armies were ready to advance on the Galician capital, Lemberg. The advance from the San River began about the middle of June and the Russian rear guards fell back on the

position that had been selected and organized for defense while the Austro-German armies remained on the San River and were engaged in the reduction of Radymno and Przemysl. This position was the ridge between the basins of the San and Bug Rivers west of and parallel to the Lemberg–Rawaruska railway and was known as the Rawaruska–Grodek line. It was the same position on which the Russians defeated the Austrians in September, 1914. The left rested on the Dniester River and extended eastward along that river.

The Russian line was penetrated by the army under General Mackensen on the 18th of June south of Rawaruska, which compelled the Russians farther south to retire from Grodek and the Dniester where the line was being held against the Austrian forces at Strij. Lemberg, which was surrounded by field works, was held for a few days but was evacuated on June 21 and an Austrian Army entered the following day.

After the fall of Lemberg the IV Austrian Army with Mackensen's XI Army marched northward in pursuit of the Russians who had withdrawn into Poland while the III and II Austrian armies advanced eastward against the Russians who were retiring in that direction to force them to evacuate the lower Dniester River and to retire across the frontier. The Austro-German Carpathian Army and the Austrian Army in Bukowina cooperated with them.

It had been planned by the Austrian and German commanders that the Austro-German forces east of Uzsok Pass with the VII Austrian Army in Bukowina were to break through the 9th Russian Army and cut off the retreat of the Russians west of Lemberg, but this encircling movement was frustrated by the 9th Russian Army which fought stubbornly in the foothills of the mountains and on the Dniester River until all danger was over.

Shortly after the fall af Lemberg, the progress of the Austro-German armies on the Polish frontier of Galicia was temporarily stopped. Mackensen with his two armies crossed the frontier into Poland between the Vistula and Bug rivers and found the forces in his front reinforced by the Russian forces that had retired from the southern part of West Poland and were recrossing the Vistula River. Against the new forces he was unable to advance and was even for a time forced to retreat. It was not until a month later that the partial withdrawal of these forces permitted him to renew his offensive.

The 8th and 9th Russian armies which retreated eastward from Lemberg made a stand on the Zlota Lipa River, a tributary of the Dniester, and also resisted all attempts to drive them eastward for a month or more.

Operations in the Baltic Provinces March to June.—North of the Nieman River there were no operations during 1914, but about the middle of March, 1915, some Russian raiding columns appeared in this section and captured the Baltic seaport of Memel and some villages north of Tilsit. These columns were soon driven back out of East Prussia. About the first of April two cavalry divisions came from the west and with a cavalry division of East Prussia and three reserve divisions a German Army was formed for operations in the Russian Baltic provinces. During April, May and June while Mackensen was advancing in Galicia this army captured the Baltic port of Libau and advanced to the line of the Wildau and Dubissa rivers. There were numerous engagements in this section but none of great importance. Eventually a Russian Army was formed on this front.

Operations on the Russian Front July–September.—By the end of June, it became evident that the drive through Galicia had come to a stop. On the 2d of July there was a conference at Posen to determine a new plan of operations. General Hindenburg advised an advance in the far north between Kovno and the Baltic with a view of turning the flank of the Russian line. This however was deemed by German G. H. Q. as too bold a plan as the two wings of the attack were too far separated and would require too much time to secure decisive results. It was finally decided that the main attack in the north should be made between the Vistula River and the East Prussian boundary where the Russians still occupied the advanced line through Prasnys-Plock, some twenty miles in advance of the Narew River, which they had intrenched in the winter of 1914–1915. The aim of the attack was to penetrate the advanced Russian line on a broad front on either side of Prasnys and eventually cross the Narew River between Ostralenka and Sierok. If successful it would threaten the Warsaw–Petrograd railway and cause the Russians to evacuate the line of the Vistula; this would enable Mackensen to continue his advance. While the main attack was in progress pressure would be exerted on the entire front from the Baltic to the Dniester River.

In view of the strength of the front to be attacked, a new army was organized, the XII, of some 9 corps which included most of the reserves of the northern and central groups. The VIII Army was to protect the left of the XII Army and advance with it.

The Russian front attacked consisted of several successive positions strongly intrenched in advance of the Narew River and a number of large bridgeheads covering the crossings themselves at Pul-

tusk, Rozan and Ostralenka. All of these lines seem to have been strongly held as the Russians appreciated the value of the Narew line. The attack began on the morning of July 13, and it was not until ten days later, July 23–24, that the Germans were able to effect a crossing of the Narew at Ostralenka, Rozan and Pultusk. As this advance threatened the rear of the Russian troops west of Warsaw, they at once evacuated the Bzura–Rawa line and fell back on the bridgehead of Warsaw. Farther south the Russians also fell back to the Vistula holding the bridgehead of Ivangorod.

With the fall of Ostralenka, Rozan and Pultusk, the Narew line was lost to the Russians who now made a stubborn resistance on the Bug River and to the north to cover the retreat of the armies on the Vistula.

The general retreat of the Russian armies from the Vistula River now began and during the last days of July the Austro-German Army in West Poland crossed the Vistula both south and north of Ivangorod, and Mackensen renewed his attacks and reached Lublin and Kolm. On the 4th of August the last of the Russians left Ivangorod, and on the 5th, Warsaw; Novo Georgievsk was not evacuated and a force of 80,000 Russians was left in the fortress. The bridgehead of Sierok was evacuated on the 8th and Novo Georgievsk became isolated. A specially equipped besieging force from the IX and XII armies was at once organized to attack this fortress which fell on the 19th after a short bombardment.

The Russian retreat was fairly well conducted and the retreating corps were covered by strong rear and flank guards. All the bridges over the Vistula and Narew and all the railway and other bridges were destroyed to delay pursuit.

After the XII Army was across the Narew the VIII Army attacked the Russians farther north and captured the bridgehead of Lomza on August 10 and Osoviec on the 22d. The VIII Army then joined in the pursuit but was not in time to head off any of the Russian columns.

Farther north the great fortress of Kovno, the strongest of the Nieman line, was attacked between the 6th and 17th of August by the X Army and was evacuated on the latter date. Olita farther south was evacuated on the 22d and there remained but the bridgehead of Grodno, toward which the VIII Army was marching. In the south Mackensen's troops advanced from Lublin and Kolm on the Russian fortress of Brest Litovsk; this was evacuated on August 25th. The Austro-German armies from West Poland ad-

vanced between Hindenburg and Mackensen. From Brest Litovsk Mackensen advanced to Pinsk one hundred miles to the east.

From Kovno the X German Army advanced on Vilna to cut off the Russians retreating toward the northeast. At the same time the VIII Army advanced on the fortress of Grodno which was evacuated on the 2d of September. In the Baltic provinces the German Baltic Army had been reinforced and advanced with those farther south, captured Mitau and advanced to the Dwina River where it succeeded in forcing a crossing between Riga and Dwinsk but was unable to develop this bridgehead.

On the 5th of September shortly after the fall of Grodno, the Czar assumed personal command of his armies with General Alexieff as chief of staff. The Grand Duke Nicholas was sent to command the Russian troops operating against Turkey and General Russky returned to the command of the northern group.

General Russky made a desperate attempt to hold Vilna but was compelled to evacuate it September 18 when the Germans threatened to surround that place. The German cavalry was already well to the east when the retreat began and the Russians were obliged to cut their way through it.

The great Russian retreat ended about the time of the great attacks in the west of Loos, Arras and in Champagne September 25, 1915. A part of the Austro-German troops had already left to carry on a campaign in Serbia and two German corps had returned to the west front just in time to meet the attack in Champagne. In the north the Germans had reached the Dwina River, but the right bank with Riga and Dwinsk still remained in the possession of the Russians. South of Dwinsk the German line was far east of Vilna and the important railway from Dwinsk via Wilna to the railway junction of Baranovitchi was in their possession. South of this junction they had failed to secure the railroad across the Pripet Marshes to Rovno which would have greatly strengthened their position.

In the south, the Austro-German forces had captured the fortress of Lutsk on the Rovno–Kovel railway and Dubno on the Rovno-Lemberg railway but the Russians had successfully defended the important railway junction of Rovno. Farther south the Russians had been obliged to retire to the Sereth River in eastern Galicia, but by a counter-attack later secured the line of the Strypa, a tributary of the Dniester. The south bank of the Dniester and Bukowina remained in the possession of the Austrians.

The Austro-German campaign on the Russian front removed the

dangerous situation which had existed at the beginning of 1915 and dealt the military forces of Russia a severe blow from which they were unable to recover. It had however not succeeded in forcing the Russians to make peace. Its most important immediate effect was that of inducing Bulgaria to join the Central Powers and thus form a connecting link between Austria and Turkey.

The blame for the great Russian retreat fell on the Minister of War who was accused of neglect in not properly supplying the armies with food, arms and ammunition, and in not calling into service and training sufficient reserves to replace casualties in the armies; for his neglect he was removed. The removal of Grand Duke Nicholas from the supreme command was generally deplored, as he was considered an able commander sacrificed by an incompetent war department.

Operations in Serbia.—From the beginning of the war both Allied and Central Powers sought the assistance of the Balkan States by various promises of concessions and assistance. In 1883 Rumania had entered into an alliance with the Central Powers when she believed that she was in some danger from Russia's ambitions in the Balkan Peninsula; since that time, however, conditions had changed. In 1913 she took part in the second Balkan war on the side of Serbia, which was the Balkan State most closely allied to Russia and Rumania was therefore on friendly terms with that power. The King, a Hohenzollern prince but not of the reigning family, declared himself bound to assist the Central Powers but the government did not agree with him and in August declared the neutrality of Rumania; on the death of King Charles, two months later, public opinion in Rumania became more and more favorable to the Allies, but no decision was reached before the great Russian retreat and the failure of the Gallipoli operations made immediate intervention inadvisable.

Bulgaria occupied an important position in the Balkan Peninsula, because its control by the Allies would cut Turkey from all railway communication with the Central Powers upon whom she relied for war materials. Unlike Rumania, Bulgaria had no desire for any of the territory of the Central Powers except a small part of Turkey but did want the return of territory of which she claimed she was unjustly deprived by Serbia, Rumania and Greece in the second Balkan war. This made negotiations with her very difficult on the part of the Allies, as Serbia was already an ally, Rumania was inclined to the Allied side, as was also a strong party in Greece. Under the circumstances it is not surprising that the

Allied negotiations with Bulgaria failed and that after the great Russian retreat and the failure of the Gallipoli campaign, Bulgaria declared war against her old enemy Serbia. There was now no danger to Bulgaria of immediate intervention of Rumania on the side of the Allies.

Having failed to win over Bulgaria, the Allies turned to Greece as Greece had a treaty with Serbia which provided that in case Bulgaria renewed the Balkan war and attacked Serbia, Greece would come to her assistance. The prime minister, Venizelos, gave the Allied Powers to understand that Greece would carry out this treaty if Bulgaria declared war, but insisted that as the Serbian Army might be destroyed before the Greek Army was ready, the Allies must furnish the 150,000 men that Serbia was to furnish under the treaty. He consented to the occupation of Salonica by the Allies in case it should become evident that Bulgaria was contemplating war.

In the latter part of September, the III Austrian and XI German armies, seven divisions each, were beginning to concentrate on the northern and western frontiers of Serbia and the Bulgarian Army was mobilized. The Greek Army was mobilized and relying on their agreement with Venizelos the Allies sent French and British troops to Salonica without waiting for Greece to declare war.

It now turned out that the King and his government considered this a violation of the neutrality of Greece, as war had not been declared and Venizelos was required to resign. When Bulgaria finally declared war the Allies were unable to furnish the 150,000 men promised to Venizelos and furthermore Greece held that her agreement was for attack by Bulgaria alone and, instead of declaring war still remained neutral. Serbia was therefore left to face invasion without receiving any material aid from her former allies Rumania and Greece.

There were no operations in Serbia from the close of the second Austrian invasion in December, 1914, until October, 1915. In the latter part of September, 1915, an Austro-German force, under the command of General Mackensen, appeared on the Danube and Drave rivers, Austrian forces were concentrated in Bosnia, and the Bulgarian Army was mobilized. In the second Balkan war, the Bulgarian force was estimated at 300,000 men; the peace strength of the army however consisted of but 9 divisions.

The invasion of Serbia began about October 6 and 7, by the bombardment of the capital, Belgrade, and the crossing of the Danube and Save rivers both to the east and west of it. The Bulgarians crossed the frontier on the 11th after the Austro-German troops

were south of the Danube. The Austro-German forces were to drive the 1st and 3d Serbian armies slowly southward while the main Bulgarian efforts were made in the direction of Nish the temporary capital, at the junction of the Belgrade–Constantinople and the Nish–Salonica railways, and in the direction of Uskub on the Nish–Salonica railway farther south with a view of cutting off the retreat of the Serbian armies. The Nish sector was defended by the 2d Serbian Army while a detachment, which it was hoped would be aided by the Allies from Salonica, defended the Uskub sector.

In the face of such overwhelming odds the defense of the country was out of question and, upon the advice of the Allied governments the aim of the Serbian commander-in-chief, General Putnik, was simply to prevent the capture of his armies. As it was impossible to escape to Salonica, his plan was to retire through Montenegro and Albania to Skutari and Durazzo. The point of concentration of the three armies was in the region of Prisrend and Mitrovitza on the Montenegran and Albanian frontier; to which the 1st and 2d armies in the north were to retire without fighting any but rear guard actions. By destroying bridges and railway rolling stock it was thought that the enemy could be delayed long enough to permit the movement, as the roads of Serbia were in a very bad condition. The 2d Army was in the meantime to check the Bulgarians as long as possible in the Nish sector and then fall back to Prisrend. The troops in the Uskub sector were to do the same.

The Bulgarians captured Uskub on October 22 but as they were threatened by three French divisions who had moved up from Salonica they did not advance on Prisrend in force. Nish was captured November 5 but by this time the northern armies were sufficiently near to prevent the advance of the Bulgarians westward. The three Serbian armies were concentrated in the latter part of November on the Montenegran and Albanian frontiers and early in December began the march across the snow-covered mountains to the Adriatic. On account of the condition of the roads, all wheeled vehicles of the army were destroyed at the foot of the mountains and the old commander-in-chief who was unable to ride a horse, was carried over the mountain roads in a sedan chair. By rapid marching the Adriatic could be reached in seven days, but due to the crowded condition of the roads many units were much longer on the way. The army reached the Adriatic with about half the strength with which the operations were begun and was eventually taken in transports to the island of Corfu to be reorganized. Austrian columns at the same time invaded and occupied Montenegro.

The Bulgarians pursued into Albania but did not attack the troops along the coast. When the Serbian Army went to Corfu, the Bulgarians moved down to the Greek boundary to join the Bulgarians already there. Most of the German and Austrian troops were withdrawn after the Serbs crossed the mountains but a few divisions joined the Bulgarians on the frontier of Greece.

While operations in Serbia were in progress, the Allied troops landed at Salonica from Gallipoli were reinforced and at the end of the year there were three French and five British Divisions at that point. A strong intrenched camp was constructed to serve as a base for future operations.

Operations on the Italian Front.—As a result of agreement between Great Britain, France and Italy, now known as the Pact of London, Italy declared war on Austria May 23, 1915.

The Italian Army on a peace footing consisted of 12 army corps or 25 infantry divisions, which at war strength without reserves would give an army of about 375,000 men. The division consisted of two brigades of infantry, about 12,000 men, and one regiment of field artillery with thirty guns. Each regiment of infantry had a section of two machine guns. The cavalry consisted of 29 regiments which were to furnish the corps cavalry and independent cavalry divisions. Of heavy artillery there were 4 regiments or four batteries each, equipped with 6-inch howitzers which were to be assigned to armies.

The Italian Army entered the campaign with an insufficient equipment of artillery which was gradually increased in the course of the war.

At the outbreak of the war, which had been anticipated for some time, the army was already concentrated on the frontier. The entire force was divided into four armies of which the 1st and 4th were to defend the Italian territory against attacks from the north while the 2d and 3d assumed the offensive toward the east. Until the campaign in Russia was terminated it was evident that the Austrian troops would be obliged to remain on the defensive. The Italian Army was commanded by the King and the operations were directed by the Chief of Staff General Cadorna.

The strategic frontier of Austria against the operations of the 2d and 3d Italian armies was along the Isonzo River from the Predil Pass south of Tarvis to the Adriatic Sea. The country east of the Isonzo is naturally divided into three distinct sections by the valleys of the tributaries of the Isonzo coming from the east. The northern section extends from Tarvis to Tolmino, near the mouth of the

Idria; in this section lie the Julian Alps through which operations eastward from the river are extremely difficult. The only Italian objective in this sector was the highway in the valley which runs southward from Tarvis and was one of the lines of supply of the Austrian forces. Three highways ran from the Italian territory in the west to Isonzo in this section reaching it at the Predil Pass, Saga and Carporetto. The middle section lies between Tolmino and Gorizia or between the valleys of the Idria and Vippaco rivers. It is high plateau with a mountain range along its southern border. The southern section lies between Gorizia and the Adriatic. In this section is the barren Carso plateau about seven miles wide, between the Vippaco River and the Adriatic, which overlooks the Isonzo from Gradisca to Monfalcone and skirts the Adriatic to Trieste less than twenty miles from Monfalcone. This plateau rises from the Isonzo eastward. The town of Gorizia on the east bank of the Isonzo lies in the broad valley between the Carso plateau and the plateau to the north. The Austrian territory extended west of the Isonzo forming a belt varying in width from two miles at Canale to ten miles at Monfalcone. The most important part of this belt was the ridge which was parallel to and a mile from the river all the way from Canale to Gorizia. This ridge terminated in Mount Sabbatino in the north and Podgora hill in the south. Between Podgora hill and the Carso plateau is the Gorizia gap three miles wide.

The Austrian line of defense may be said to have been the Isonzo River from Predil Pass to the bend of the river south of Canale where it crossed the river and was on the Sabbatino ridge west of the river as far as Gorizia. South of Gorizia it followed the western edge of the Carso plateau.

It was natural that the Italian G. H. Q. should select for its main objective the Carso plateau, since the possession of this would lead to the fall of Trieste, a very important objective. Although taken somewhat by surprise, nature came to the temporary relief of the Austrians as the Isonzo, which was usually low at this season of the year, was in flood in the latter part of May and was very wide south of Gorizia. The Italian cavalry had been ordered to capture the bridge west of Monfalcone but hesitated and the Austrians destroyed it, thus preventing any possibility of securing a footing on the Carso by surprise. It was not until June 7, two weeks after war was declared, that the 3d Italian Army reached the foot of the Carso at Monfalcone and it was not until three weeks later that the Italians succeeded in getting a second bridge at Sagrado farther north where repeated attempts had been made. In the meantime

the Austrians had been strongly reinforced. The attack of the Carso plateau on the front Sagrado–Monfalcone continued throughout the year with siege operations alternating with assaults, but at the end of the year the Italians had barely gotten a footing on the edge of the plateau.

Toward the end of May the Italian 2d Army attempted to take the Sabbatino ridge north of Gorizia on the west bank of the river by assault but the position was found to be strongly intrenched and resisted all efforts.

The great assault on the Sabbatino ridge as well as on the Carso plateau was made in October after a prolonged bombardment, but like the June assault it failed and the heights remained in the possession of the Austrians at the close of the year.

At Plava, in the bend of the Isonzo south of Canale, the Italians succeeded in securing a bridgehead in June, but were unable to advance from it during the year. Still farther north the Italians had captured Caporetta on the first day of the war but it only served to secure the valley road at this point. On the northern front from Switzerland to the Isonzo there were no important operations during the year although the Italians gained ground at various points.

On the whole the campaign on the Italian front had been disappointing as it had little effect on the operations of the Austro-German armies. The difficulties that confronted the 2d and 3d Italian armies had apparently not been appreciated when war was declared; the Italians had had no previous experience in trench warfare.

CHAPTER VII.

OPERATIONS IN TURKEY IN 1915.

War was begun by Turkey on Russia October 31, 1914, but the first formal declarations between Turkey and the Allied Powers was made by Russia on November 3, and shortly followed by the other powers.

According to the best information available the Turkish Army was made up of 13 army corps of 3 divisions and two regiments of cavalry each. The division contained 3 regiments, each with a machine gun company, a battalion of rifles and a regiment of field artillery with 24 guns. There were two additional divisions not included in the corps. The country was divided into four military districts with headquarters at Constantinople, Erzingan in Armenia, Damascus in Syria, and Bagdad on the Tigris River in Mesopotamia. The strength of the army on a peace footing was estimated as about 250,000 men. The term of service was three years with the colors and six in the reserve.

Attempts had been made to reorganize and train the Turkish army between 1909 and 1912 by German officers but with little apparent success, as was shown in the first Balkan war in 1912, in which eight of its corps were engaged. True to its old traditions, the Turkish army proved strong in the defence of positions but weak in open warfare. Its staff services and especially its supply service were as inefficient as they had been in previous wars. In the Balkan war the Turkish Army lost much of its artillery which had probably been only partially replaced.

At the beginning of the war, Allied troops appeared in two of its four districts. In the Caucasus district of Russia the Russian forces were concentrated at Kars near the frontier of Turkish Armenia and soon raiding columns made their way across the frontier. In Mesopotamia a British force landed at the mouth of the Tigris River and secured a base at Basra for operations in Mesopotamia.

The Armenian Front.—The Armenian frontier between Russia and Turkey extends from the Black Sea to Mount Ararat northeast of Lake Van. The Russian base was the fortress of Kars, about midway along the front and fifty miles from the frontier. It was on a branch of the Caucasus railway with a railhead at Sarikamish, fifteen miles from the frontier. The Turkish base was the fortress

of Ezerum, opposite Kars and also fifty miles from the frontier. Its nearest railheads were near Angora, four hundred miles to the west and at the end of the Bagdad railway, two hundred miles to the south. Both Kars and Ezerum are about 6,000 feet above sea level and in winter the mountains between them are covered with snow.

For operations on this front the Russians had the three corps of the Caucasus district with four cavalry divisions; the Turks had the three corps of the Armenian district and transported one corps from the Constantinople district which was landed at Trebizond on the Black Sea.

About the middle of November, 1914, a Russian column invaded Turkish Armenia on the roads running from the frontier to Ezerum and reached a point midway between the frontier and that town. In the meantime the Turks concentrated their three corps in the vicinity of Ezerum and advanced against the Russian front while the corps at Trebizond attempted to reach their flank and rear via Kardahan. The Turks crossed the frontier early in January but the main column met defeat not far from the frontier and the detached corps got no further than Kardahan. The Turks recrossed the frontier and there were no operations on this front during the remainder of this year as Russian and Turkish forces were withdrawn to other fronts. There were some operations of minor importance in northern Persia in the vicinity of Tabriz.

Mesopotamia.—The valley of the Tigris River was occupied by two Turkish corps, one at Bagdad, 300 miles from its mouth, and the other at Mosul, 200 miles farther north. The British operations in Mesopotamia were conducted by the government of India. The first expedition, consisting of the 6th Indian division, occupied Basra early in November, 1914, to protect the British oil fields in southwestern Persia. This force was gradually increased to an Army corps and in April, 1915, General Nixon was sent to command it. He considered his force, the 6th and 12th Indian divisions and a cavalry brigade, sufficiently strong to cover more extensively the country about Basra in all directions so as to prevent surprise by raiding parties.

The 6th division under General Townshend started northward along the Tigris River about the last of May, 1915. It was accompanied by a naval flotilla of light draft vessels and a large fleet of transport vessels of various types. In a little over a month it reached Amara about 100 miles from Basra without any serious opposition.

During July the 12th division started up the Euphrates and by the end of the month had cleared that river to Nasirieh, also about 100 miles from Basra.

The first operations were accomplished with so little difficulty that it was now decided to push on to Kut el Amara on the Tigris, one hundred miles south of Bagdad, and for this purpose the force on the Euphrates was reduced to garrison troops and the remainder were gradually transferred to the Tigris to form garrisons along the river to protect the communications.

The advance was begun by the 6th division on August 1 and the vicinity of Kut was reached about the last of September. The weather was trying, as the thermometer was 110 degrees in the shade and the roads were deep in dust. On account of the low water river navigation was also difficult. On the river south of Kut there was a Turkish division which was skilfully attacked and routed. The British captured 1,100 prisoners and 14 guns.

The pursuit was kept up for as far as Azizieh half way between Kut and Bagdad on the Tigris, but after the first days it was found that the Turks were retiring in fairly good order and at Azizieh early in October it was learned that they had taken up an intrenched position at Ctesiphon, midway between Azizieh and Bagdad and were waiting an attack. It had been hoped that the Turks could be pursued as far as Bagdad without further serious engagements but this was now found to be impossible.

As the second operation had been undertaken simply to secure an advance base at Kut, the question now arose as to the advisability of dropping back to that point and securing it properly, or of attempting to make a dash for Bagdad. General Townshend considered any further advance hazardous and that it would be more prudent to await reinforcements at Kut and advance with at least an army corps. His own column had been much reduced by the fatiguing operations of the campaign and by some losses in battle. General Nixon, upon whom the responsibility of the advance would naturally fall, was tempted by the political effect which the capture of Bagdad would have and was influenced by the ease with which the Turks had been forced from their various positions on the Tigris River. He was aware of the great interest which had been aroused in England and India by the campaign for which he had received the congratulations of the King himself. The governments of India and Great Britain, although not fully advised of local conditions, also encouraged him since the capture of Bagdad would be an offset to the failure of the Dardanelles Expedition from which

the troops were about to be withdrawn. General Nixon therefore gave the order for the advance on Bagdad.

The advance from Azizieh was begun about the middle of November and on the 21st, General Townshend's column, consisting of the 6th Indian division a brigade of the 12th division and a brigade of cavalry, reached the Turkish position at Ctesiphon. The Turks were believed to have about 13,000 regular troops and a force of irregulars. Here an attack was made by General Townshend on the 22d, but the position could not be carried. The British force remained here until the night of the 25th and then when it appeared that the Turks were being reinforced it began its retreat on Kut harassed by the Turks. That town was reached on December 2 and 3, and it was decided to hold it until a relief column could reach it. The cavalry and most of the shipping were sent down the river. On the 8th the place was invested by the Turks and so remained at the close of the year.

Egypt.—In the autumn of 1914 the Turkish military authorities planned a campaign against the British troops in Egypt with a view probably of raising an insurrection in that country. It was a formidable undertaking, involving not only the crossing of the desert of the Sinai Peninsula, about 150 miles wide, but also the crossing of the Suez Canal, defended by vessels of the British Navy and by the British forces in Egypt.

The main column was composed of an army corps of three divisions which was assembled at Beersheba in the southern part of Palestine. It was to cross the frontier about thirty miles from the coast and traverse the desert to Ismalia on the Suez Canal. A smaller column of perhaps 5,000 or 6,000 was to follow the coast road from Gaza to El Kantara on the canal, the same route followed by Napoleon in his march from Egypt to Acre in 1779 which led him to say "Of all the obstacles which cover the frontiers of empires, a desert is certainly the most formidable; a chain of mountains like the Alps holds second rank; rivers third." A still smaller column was to follow a caravan route still farther south and to reach the town of Suez on the canal.

The main column left Beersheba about the middle of January, 1915, and reached the canal about the first of February. The side columns reached the canal about the same time. In Egypt at this time there were the Anzac corps from Australia and New Zealand, a Territorial division from England, an Indian force in which there were many regular battalions, and the regular Egyptian army. At several points along the canal these held bridgeheads on the east bank.

At the canal all attacks of the Turkish forces were repulsed during the first days of February and the Turkish forces retired. The losses were insignificant as no counter-attack was made.

When the attack at the Dardanelles was made a few months later most of the Turkish troops were withdrawn from this front and there were only raiding operations in it during the remainder of the year.

Dardanelles.—The most important operation in Turkey was the Allied attack on the coast defences of the Dardanelles Strait, between the Gallipoli peninsula and the Asiatic shore.

The Dardanelles Strait connecting the Aegean Sea with the Sea of Marmora is the western link of the chain of waterways between the Aegean and Black seas and is the sea entrance to the harbor of Constantinople. From the entrance to the town of Gallipoli it is a little over thirty miles in length; its narrowest width in this section is less than a mile and its greatest is about five miles. The minimum mid-channel depth is about 150 feet. The surface current flows westward at the rate of about two miles an hour. The narrows are about sixteen miles from the entrance and along this stretch were the principal batteries for the defence. From its western extremity at Cape Helles the Gallipoli peninsula gradually increases its width from a mile and a half at the entrance to seven miles at the narrows. The batteries were therefore everywhere within reach of heavy naval guns firing over the peninsula. Those on the north side were covered from this fire by being below the crest, but those on the Asiatic side were not thus protected.

The original defenses of the Dardanelles consisted of two masonry castellated works built at the narrows about 1500. About the middle of the 17th century they were supplemented by two additional ones constructed at the entrance. None of these were of any value in the defense which relied on modern barbette batteries of 6-inch to 14-inch guns with ordinary field and siege pieces on mobile carriages and fields of buoyant mines.

At the entrance of the strait near the old forts were three batteries mounting two 6-inch, two 9-inch and four 10-inch guns in barbette emplacements with high traverses between the guns. On the south side there was a battery of four 10.2-inch guns and one of two 9-inch guns. Other batteries were of similar guns located in suitable places along the channel leading to the narrows. At the narrows were large batteries of 11-inch and 14-inch guns. There were no turrets or disappearing mounts and the guns as a rule were not of recent construction. All the batteries relied upon elevation

for protection against naval fire. The organization and direction of the defense against naval attack was assigned to an admiral of the German Navy.

Even before war was formally declared on Turkey a British and French blockading fleet appeared off the entrance of the Dardanelles and on November 2 opened fire on the batteries at the entrance, but only at long range. It probably served as an indication of what would probably follow and no doubt caused the preparation of the batteries for defense.

The decision to attack the Dardanelles, secure Constantinople, isolate Turkey and open communication with Russia through the Black Sea was one of the main features of the grand strategy of the war decided sometime during the winter of 1914–1915 by the British and French governments. If successful, it would cut off all communication between Turkey and the other Central Powers and would have an important effect on the neutral states of Rumania, Bulgaria and Greece, all of whom would probably then join the Allied Powers. It would permit Russia to be supplied by her allies with ammunition and artillery in exchange for food supplies.

The decision was arrived at gradually and as result of the urging of the head of the naval department of Great Britain. Early in January, 1916, it was to be merely a naval demonstration made in aid of the Russians in the Caucasus district with the hope of drawing the Turks from that front. Later in the month it developed into a plan to reduce the defenses by a naval attack in order to let the naval forces seize Constantinople. This plan met with considerable opposition, and about the middle of February it was finally decided to make a joint naval and land attack. However a preliminary naval attack seems never to have been wholly dropped.

The difficulty in carrying out the last plan was to secure the necessary troops. Both the British and French armies in France had lost heavily in 1914 and it seemed probable that Generals French and Joffre would in 1915 need every man that could be spared. Neither was in favor of the new plan. It was not until the Turkish invasion of Egypt in February, 1915, failed, that Lord Kitchener then at the head of the War Department, was willing to consider the plan. He now conceded that most of the troops in Egypt were available for the expedition, but these were mostly new troops and it was desirable to have at least one division of regular troops. There was such a division, the 29th, being formed in Great Britain but it was not until the middle of March, after the failure of the British attack at Neuve Chapelle, that Lord Kitchener consented to let it sail.

In the meantime the naval force in the Aegean Sea was being constantly increased and by the middle of February there was assembled a fleet of fourteen British and four French battleships, most of them equipped with four 12-inch and ten to twelve 6-inch guns and among them the recently constructed "Queen Elizabeth" and "Inflexible" of the British Navy, the former carrying eight 15-inch guns and the latter eight 12-inch guns. For sweeping the mine fields there had been assembled a large fleet of North Sea trawlers and a minor fleet of cruisers and destroyers.

Notwithstanding the fact that naval attacks on land batteries had in preceding wars usually failed to accomplish their object, the Admiral of the Fleet believed that with warships assembled at the Dardanelles he could succeed. He may have been influenced by the success of the British naval attack on the defenses of Alexandria, Egypt, in 1882. In that attack however there was no mine field to be passed and the batteries were located on a long sea front and not along a narrow channel sixteen miles long.

The naval attack began February 19 when the batteries at the entrance were bombarded to permit the mine sweepers to enter the channel and sweep up the mines. The batteries at the entrance were easily silenced but they were not materially injured until the 26th when a landing party destroyed those at the end of the Gallipoli Peninsula. The batteries on the Asiatic side, some miles inside the entrance which interfered with mine sweepers were next bombarded intermittently and while they could be silenced, as the men could not remain at the guns under the terrific fire, the fleet was unable to destroy the guns.

On March 5, the bombardment of the batteries on the Gallipoli side of the narrows was undertaken by the "Queen Elizabeth" and "Inflexible" with their eight 15-inch and eight 12-inch guns and another warship with its four 12-inch guns firing across the peninsula. Seaplanes were employed to note the effect of the fire. On the following day, the bombardment was directed on the batteries at the narrows on the Asiatic side. Then the attack on these batteries was made from the entrance of the channel in which the mine sweepers had been at work every night.

While the navy was trying to silence the batteries, the land force was being organized and on March 17, the commander of the land force, General Ian Hamilton, arrived at the advance naval headquarters on the island of Tenedos off the coast south of the entrance.

On the following day the last attempt was made by the British and French navies to force the entrance. The battleships entered the strait in squadrons in succession to batter the Turkish batteries.

In the course of the day, of the four French battleships one was sunk and the three others badly damaged; of the British battleships, two were sunk and the "Inflexible" was badly damaged; all either by gun fire or by mines which had drifted down the channel. The other vessels were then withdrawn and the attempt to force the entrance by the navy ceased.

When General Hamilton reached the Dardanelles, the transports with a French division and British transports with the naval division and a part of the Anzac corps were in the harbor of Mudros on the Island of Lemnos which was to be the base of operations. An inspection of the British transports showed that they had been hastily loaded with troops and supplies and would have to be reloaded before operations were begun. The fleet therefore returned to Egypt. General Hamilton accompanied it and did not return until the 7th of April when he had an opportunity to study the problem of attacking the fortifications by land. In the meantime the Turks under German supervision had been busy in preparing for the landing which they must have known would probably follow the failure of the naval attack.

The problem of the Allies was by no means an easy one as they were now to meet the Turks in a kind of warfare in which they had always shown great capacity, the defense of fortified positions. From Cape Helles, the end of the Gallipoli Peninsula where it terminates in bluffs one hundred feet high, the ground rises to the Krithia or Achi Baba ridge which extends across the peninsula about five miles from Cape Helles. This ridge is between 400 and 600 feet above sea level and terminates in a peak, Achi Baba, 700 feet.

At the narrows, separated from the Krithia ridge by a wide valley, is another ridge, Pasha Dagh, extending almost across the peninsula; its highest part is between 800 and 1,000 feet above sea level. The principal coast batteries were at the eastern end of this ridge.

Six miles to the north of Pasha Dagh and again separated by a wide valley is the Sari Bair ridge, between 800 and 1,000 feet high which terminates at the Aegean Sea in steep bluffs and runs in a northwesterly direction.

To reach the Pasha Dagh ridge, on which the main batteries commanding the channel from the Gallipoli side were located, an atfack from the west would have to secure the Krithia ridge, and an attack from the north would have to secure the Sari Bair ridge.

When in the latter part of April the transports arrived from Egypt they brought with them the 29th regular division, the Anzac corps made up of the 1st Australian and the Australian–New

Zealand divisions and a Royal Naval division. Some of the battalions of this last division had been in the naval brigades at Antwerp. The French contingent consisted of a Colonial division made up both of white and native troops. In all General Hamilton had at his disposal five divisions or about 75,000 combatant troops. As a possible reserve in Egypt there was an Indian brigade and the 42d division of Territorials from England which had been sent to Egypt for training.

After a careful study of his problem General Hamilton decided to land the 29th division at the end of the peninsula, which is only a mile and a half wide, to secure the Achi Baba ridge for future operations. The Anzac corps was to land about eleven miles from the end, where the peninsula is less than five miles broad, with a view of capturing the Sari Bair ridge and cutting off the retreat of the Turks eastward. To confuse the Turks, the French were to make a landing on the south side of the entrance and the naval division was to threaten a landing on the north shore near the end of the Gallipoli Peninsula at Bulair.

The Turkish army of the Dardanelles consisted of six divisions under the command of the German General, Liman von Sanders. Uncertain as to the plans of the Allies, he posted one division at the end of the peninsula with another in reserve near Maidos; one division at Bulair with another in reserve at Gallipoli; two were posted on the Asiatic side to prevent landings at the mouth of the Dardanelles and opposite the island of Tenedos. The two reserve divisions at Maidos and Gallipoli would be employed on either side of the strait.

The problem of landing the Allied forces was given special attention; in this operation the troops would have the support of the fire of the fleet and the use of its trawlers, launches and life boats. As a rule the landing battalions were loaded in the life boats and several boats in column were towed by the launches from the trawlers or other vessels by which they were brought from the base. At the end of the peninsula the 29th division was to make five landings; three along the bluff at the end, one in the strait about two miles from the end and one on the north coast about four miles from the end. The three landings at the end were to be made in coves each about half a mile wide in which the ground rose more or less abruptly to the plateau one hundred or more feet above the sea. About a battalion was to be landed at each point and at each point the battalion was to be reinforced as rapidly as possible. At one of the coves the reinforcements were to be landed from a specially

prepared collier which was to be run aground and the men were to leave by a door cut in the hulk near the bow. Lighters were to be taken along to be used to form a bridge to the shore if the water was found too deep to wade. It was expected that the fire of the naval vessels that accompanied each party would destroy the defenses and keep down the fire so that the landing could be made with comparatively little loss. When sufficient troops were landed and the line could be formed, the troops were to advance and seize their objective, the Achi Baba ridge, which it was hoped to take the first day. The Turks had expected landings in these coves and had provided for them by a series of intrenchments, redouts, machine gun positions and wire entanglements. Entanglements were constructed in and close to the water and near the crest of the slope; the coves were separated by entanglements.

On the night of April 24, in a calm sea the vessels carrying the troops left the advance base at the island of Tenedos and steamed towards their various landing places. About 5 a. m. the bombardment of the Turkish intrenchments was begun by the battleships detailed for that purpose and some time thereafter the landing parties were towed to their destinations. The landing of the 29th division proved more costly and difficult than had been anticipated, as the naval bombardment had produced little effect on the Turkish intrenchments near the shore. This was particularly true at two of the coves at the end of the peninsula where the boats were exposed to heavy rifle and machine gun fire and as the men jumped out they found themselves held up by heavy wire entanglements. At points where the troops landed without great loss, they found great difficulty in capturing the positions organized by the Turks on the plateau above. At one point it was even necessary to withdraw the troops to the boats. The collier grounded in deep water and great difficulty was experienced in manouvering the lighters under fire. Notwithstanding its heavy losses, the 29th division succeeded in getting a foothold on the end of the peninsula for a base of operations.

A part of the French division made a landing on the south side of the entrance on the same day and captured some works but was shortly withdrawn and the French division took over the right of the line held by the 29th division. On the return of the naval division from its demonstration it was also landed here.

Early in May this front was reinforced by an East Indian brigade and 42d division of Territorials, both from Egypt, and by a second French division. In June another Territorial division, the 52d, ar-

rived from England. During this time replacement troops also arrived to replace the losses in the 29th division.

After the first advance, warfare on this front settled down to trench warfare in which the casualties were heavy and little progress was made. German howitzers soon made their appearance behind the Turkish lines and the whole zone was brought under fire. The fire of these howitzers both from the Gallipoli and Asiatic side was able to reach the beaches where the supplies were landed. In the latter part of May a German submarine arrived via the Mediterranean and sank two of the British battleships. This caused the withdrawal of these ships and deprived the land force of their assistance. These were later replaced by light draft monitors.

With the passing of each week the Turkish intrenched line became stronger and by June it became evident that there was little prospect of reaching the Achi Baba ridge on this front, as the Allied troops were not equipped with sufficient artillery for the purpose.

On April 24th, the day the 29th division landed at the end of the peninsula, the Anzac corps made a landing in a shallow cove at the foot of the slopes of a spur of the Sari Bair ridge a little farther east than originally planned. The landing was not seriously opposed and the troops pushed up the slopes at once to secure as much ground as possible before the Turkish reserves could arrive. On the first day the Anzac corps secured nearly all the ground it was able to take during the first three months. This was a triangle of barren ridges and gullies measuring about a mile and a half along the shore and extending inward about three quarters of a mile. It was almost surrounded by still higher ground and was at first held with difficulty. A part of the beach was exposed to fire from positions held by the Turks to the north and south. The Anzacs were practically without water which was brought in ships and stored in large reservoirs constructed at the foot and on the slopes of the bluffs from which it was carried to the lines on mule back or by carriers.

It was soon evident that unless strongly reinforced this force could not advance, but as long as it remained it would retain a large Turkish force, since it threatened Sari Bair ridge. This was practically its function during May, June and July while the main attack was being directed against the Achi Baba ridge. It was subject to frequent attacks and until thoroughly intrenched its losses were considerable.

As his troops were held up on both fronts a few days after their landing, General Hamilton requested reinforcement by at least two

corps in addition to the troops already en route from Egypt and England. In July therefore there were sent him from England three divisions of the new army, the 10th, 11th and 13th; these were to be followed by the infantry of two additional Territorial divisions, the 53d and 54th, and the 2d Australian division. On August 1, he had at his disposal the 8th corps composed of the 29th, 42d and 52d divisions; the 9th corps composed of the 10th, 11th and 13th divisions of the new army; the Anzac corps; the naval division; the Indian brigade and the French corps. The 52d and 54th divisions were to arrive by August 10 and the 2d Australian division about the same time.

The problem now arose as to the best disposition to be made of the new reinforcements. At this time it was assumed that the Turks had 33,000 men in front of the western line, 25,000 in front of the Anzac corps, 3,000 guarding the coast to the east of the Anzac corps and 39,000 in reserve. The one advantage the British had was their ability to land at any selected point. After careful consideration it was decided to make the new attack on the Anzac front and combine with it a landing in Suvla Bay and an attack on the right flank of the Turks confronting the Anzac corps. The troops in the west were to attack at the same time to prevent the Turks from withdrawing troops from this front. For the new attack the Anzac corps was reinforced by the 13th division, the East Indian brigade and a brigade of the 10th division.

August 6 was selected for the attack and that night the Suvla Bay force was landed. The main attack was delivered by the reinforced Anzac force between August 6 and 10, and although at one time the troops had the western end of the Sari Bair ridge in their possession, they were driven off before the position could be consolidated and the main attack failed. The Anzac corps had however greatly improved its position by extending its area of occupation and would have been able to cooperate with the Suvla Bay force had that advanced as had been planned.

At Suvla Bay, the forces were landed without any opposition and on the day of the landing there were few Turkish troops to dispute their advance. Due to lack of energy and initiative on the part of the British commanders here, the troops did not advance as planned and the advantage gained by this unexpected landing was lost as the Turkish commanders soon had their reserves en route for the new front. The troops first landed were later reinforced by the 29th division from Helles and by the two Territorial divisions but the Turks were now so strong that no progress could be made.

By the first of September, it was evident that without large reinforcements with adequate artillery nothing could be accomplished on the Gallipoli Peninsula and the withdrawal of the force began to be considered. As General Hamilton was opposed to the withdrawal he was replaced by General Munro, who commanded the 3d British Army in France, and who was sent to report on the situation and make a recommendation. He recommended the evacuation of the peninsula and reported that the withdrawal could be effected without serious loss. The final decision was made by Lord Kitchener who was sent to the Near East in November. The withdrawal was begun in December and completed in January; it was a well planned and executed operation which involved few casualties and only a moderate loss of supplies. Even before the evacuation a British and a French division had been sent to Salonica at the request of the French government to form the nucleus of a force to assist the Serbs. The other French division joined this force but most of the British forces were sent to Egypt to be distributed on the different fronts.

The failure of the Gallipoli operations may be ascribed to various causes, the principal ones being an underestimate of the resistance that could be offered by the Turks and an overestimate of the assistance that could be rendered by the British Navy. Like the British forces on the west front at this time, the troops were badly equipped to attack intrenched positions.

The following extracts are from the report of the Chief of Artillery of the British forces. (Gallipoli Diary—Sir Ian Hamilton.)

"The whole story of the artillery at Helles may be summed up in the following sentences: insufficiency of guns of every nature; insufficiency of ammunition of every nature, especially H. E.; insufficient provision made by the Home Authorities for spare guns, spare cartridges, spare parts, adequate repairing workshops, or for a regular daily, weekly or monthly supply of ammunition; guns provided often of an obsolete pattern and so badly worn by previous use as to be most inaccurate; lack of aeroplanes, trained observers and of all the requisites for air observation; total failure to produce the trench mortars and bombs to which the closeness of the opposing lines at Helles would have lent themselves well—in short, total lack of organization at home to provide even the most rudimentary and indispensable artillery requisites for daily consumption; not to speak of downright carelessness which resulted in wrong shells being sent to the wrong guns, and new types of fuses being sent without fuse keys and new types of howitzer shells without range tables. These serious faults provoked their own penalties in the shape of the heavy losses suffered by our infantry and artillery, which might have been to a great measure averted if sufficient forethought and attention had been devoted to the 'side show' at the Dardanelles.

"The complete absence of H. E. was severely felt, as shrapnel were of little use for destroying trenches, machine gun emplacements, etc. Therefore, in each and every British attack, success was jeopardized and our infantry exposed to cruel losses, because, firstly, there was not sufficient ammunition to prepare their attack, and, secondly, there was no H. E. (except for howitzers) to destroy the machine guns in their emplacements. The latter, therefore, inflicted great losses on our infantry in their advance.

"As for heavy artillery, practically speaking, there was none. Only one 6-inch howitzer battery (4 howitzers) and one 60-pr. battery (4 guns) were in action at Helles up to July when four more guns of the latter calibre were landed. Unfortunately, however, the 60-prs. were of little use, as the recoil was too great for the carriages and the latter broke down beyond repair by our limited resources after very few rounds. At the beginning of August only one 60-pr. gun remained in action. Consequently, we had no heavy guns capable of replying to the Turkish heavy guns which enveloped us on three sides, and from whose fire our infantry and artillery suffered severely.

"As for anti-aircraft guns, they did not exist at all and the hostile aeroplanes used to fly over and drop bombs *ad lib*, without fear of molestation, the only saving clause being that the enemy appeared to possess almost as few aeroplanes as the British.

"As regards trench mortars, the supply was hopelessly inadequate. I cannot give the exact figures, but I believe there were not a dozen at Helles during the whole period I was there, and these were of such an indifferent type as to be practically useless, and for this reason no one bothered about them. No provision appears to have been made for the supply of such necessities of trench warfare by the Home Authorities. This appears to be indefensible, as I believe very early in the operations their provision was specially asked for by G. H. Q. The absolute failure to supply such articles of vital necessity eventually led to the French C-in-C. at Helles lending the British two demizel trench mortars and large quantities of ammunition. These were manned by artillery detachments, and by their magnificent work and the constant demand from the infantry for their services, it was conclusively proved what an invaluable aid a sufficient supply of these weapons would have been."

The British casualties have been given as about 100,000 and about an equal number were evacuated on account of sickness. The total Turkish casualties are also given as 200,000.

CHAPTER VIII.

GENERAL PLANS AND OPERATIONS ON THE WEST FRONT IN 1916.

The operations of 1915 had been a disappointment to the governments and peoples of all the Allied nations. The Russian Army, instead of capturing Cracow and completing the destruction of the Austrian Army as had been confidently expected, had been compelled to withdraw even from the frontier fortified line on the Nieman, Narew and Vistula rivers. Neither the attacks made by the British and French troops on the west front nor the accession of Italy to the Allied cause had been able to stop the advance of the Austro-German forces in the east.

The Dardanelles operations on land and sea had failed to open that channel and in Mesopotamia the advance on Bagdad had resulted in the defeat at Ctesiphon and the investment of a British division at Kut.

The diplomatic efforts to form a Balkan league had failed and the defeat of the Russian armies had caused Bulgaria to declare war on the side of the Central Powers. Rumania was still neutral and while the government was inclined to assist the Allies, it could hardly be expected to declare war until the Russian Army showed signs of recovery. Greece was also neutral and while there was a strong party under the late Prime Minister Venizelos in favor of immediately joining the Allies, the government itself was cautious and did not consider the military situation at the time favorable for action on the part of Greece. The British forces had evacuated Gallipoli and released the Turks, the Bulgarian armies were on the Greek frontier, and there was still a possibility that the Allies would evacuate Salonica. At the end of the year there were five British and three French divisions at that place.

During the year Great Britain had made great progress in developing her industries for war purposes and toward the close of the year when it became evident that she could not longer rely upon voluntary enlistment to recruit her armies, steps were taken to introduce conscription in England, Scotland and Wales. It was not however until May, 1916, that the final amendment passed that placed all men between the ages of 18 and 41 in the Reserve subject to call to the colors; under this act exemptions were permitted in order not to cripple important industries and for other causes.

These exemptions made it difficult during the following years to furnish the replacements demanded by the field armies. Toward the close of 1915, General French had at his own request been relieved from the command of the armies in France and was succeeded by General Haig who commanded the 1st corps at the beginning of the war and was later in command of the 1st Army.

In France, too, great progress in the development of industries for war purposes had been made. In the course of the year there had also been some changes in the higher commands of the army. Toward the end of 1915 when the French troops were sent to Salonica, the Army of the Orient was created and General Serrail was sent there in command. General Joffre was now made Commander in Chief of the French Armies in the Orient and France and General Castelnau was made Chief of Staff of the French Army. Not satisfied with the simple supervision of the two forces, General Joffre retained the actual command of the forces on the west front. In order to simplify control, the French armies on the west front had been divided into three groups under Generals Foch, Castelnau and Dubail. When Castelnau was made Chief of Staff, General Langle, who had commanded the 4th Army, was placed in command of the central group.

In 1914 the conduct of the war had been left largely to the military commanders, but in 1915, in order that the governments might exercise more complete control there was organized at Paris the first Anglo-French Council which was expanded in 1916 to include representatives from Belgium, Russia, Italy and Serbia.

The great Russian retreat had a very serious effect upon the internal conditions of Russia, since it led to distrust and criticism of the executive branches of the government; these were the first indications of the breaking out of the great revolution. To restore confidence, the Czar took personal command of the army and removed the Minister of War. Conditions in the war department were greatly improved, but the task of recruiting and supplying the army and restoring its morale was too difficult to be properly performed in the unsettled condition of the country. Following the precedent of 1812, the Russians in their retreat had destroyed villages and farms and the great mass of fugitives from them added to the difficulties of supply and general discontent.

Although the campaigns of the Austro-German armies had overcome the menace of the Russian armies on the east front and had won the alliance of Bulgaria and rail connection with Turkey, they had not resulted in peace with Russia nor had they prevented Italy

from joining the Allies. The successful defense of Gallipoli removed all danger of a successful Allied advance on Constantinople and with the Russian campaign had prevented Rumania and Greece from joining the Allies. The campaigns of 1915 had really been defensive rather than offensive measures and the German G. H. Q. realized that if the war were to be won it must be won on the west front.

For the year 1916, the Allies decided to remain on the defensive until the Russian armies were reorganized and then to assume the offensive simultaneously on the west, east and Italian fronts. This plan however had to be modified due to the earlier offensive operations undertaken by the Germans and Austrians on the west and Italian fronts. After much discussion it was decided to hold Salonica as a base for future operations although there was but little prospect of this force assuming the offensive during the early part of 1916 unless the Greek government decided to join the Allies. To evacuate Salonica would prevent all hope of assistance from the Serbs, Rumanians and Greeks. In order to regain the prestige of the British government with its Mahommedan subjects, it was essential to continue the operations in Mesopotamia and if possible relieve the force at Kut. It was also essential in view of the release of Turkish forces at Gallipoli to prevent a successful Turkish advance on Egypt and if possible to assume the offensive on this front. In cooperation with the British forces on the Turkish front, the Russian Army of Caucasia now under the command of Grand Duke Nicholas, was again to advance into Turkish Armenia and draw Turkish troops to that front.

On the European fronts, German G. H. Q. requested the Austrians and Bulgarians to remain on the defensive. Should the Austrians weaken their troops on the east front to take the offensive against Italy, it was feared that the Russians would break through their weakened lines. On the Salonica front, an advance against the Allied lines about Salonica had little prospect of success while it might cause the Greek government to declare war on the side of the Allies. Most of the German and Austrian forces were withdrawn from Serbia early in 1916 to be prepared to act against Rumania or to reinforce the Italian and Russian fronts. The Austrians did not agree to the program as outlined but determined to assume the offensive against Italy to relieve the pressure on their forces on the Isonzo. German G. H. Q. decided to remain on the defensive on the east front and once more attempt to secure a decision in the west. After carefully considering the various fronts, it was decided to attack the fortress of Verdun.

Until the winter of 1914, the infantry arms were confined to the rifle and the 2 machine guns per battalion. When the armies settled down to trench warfare, the hand grenade soon made its appearance. In 1916 there were introduced the rifle grenade, the light machine gun and the 37-mm. gun. A heavy machine gun company with 8 to 12 guns was attached to each battalion in the French Army. In order to furnish the men for this service, many of the French regiments were reduced to three battalions. Two 37-mm. guns were assigned to each regiment. In 1916, the number of light and heavy guns per 1,000 of infantry was greatly increased and gas shells came into more common use. Schools of instruction behind the lines were also introduced for the training of troops withdrawn from the lines.

Verdun.—From the very beginning of the war, the Germans had shown a desire to isolate and capture the fortress of Verdun, which was on the direct railway line from Metz to the Marne River and occupied a threatening position with respect to one of their main lines of communications, the railway from Luxemburg and Thionville along the Belgian boundary to Mezieres. It was from the French lines on both sides of the Meuse north of Verdun that the American Meuse–Argonne drive was made in 1919 to secure this railway.

The first attempt to isolate Verdun was made early in September, 1914, during the Marne Campaign, when a column was sent from Metz with heavy artillery to capture Fort Troyon of the Verdun–Toul defensive curtain ten miles south of the fortress while the 3d French and V German armies were fighting between the Meuse and Aire rivers to the west. Fort Troyon was badly battered but a relief column arrived from Toul before the Germans could effect an entrance into the fort.

The second attempt was made late in September, 1914, after the 2d French Army had been sent to the north of Paris. At that time the Germans captured the fort near St. Mihiel about twenty miles from Verdun and established the St. Mihiel salient. At St. Mihiel the Germans were on the Meuse River and prevented all communication with Verdun by the double-track railway along the valley of the Meuse.

The third attempt was the campaign in the Argonne in the winter of 1914 by means of which the Germans reached a point in the Argonne about twenty miles almost due west of Verdun and brought under fire both the double-track railway running west from Verdun to Chalons on the Marne and the national highway which ran

through the Argonne to Verdun parallel to the railway. Railway and highway communication to Verdun was thereby limited to a single-track railway and the highways running to Bar le Duc and Revigny on the Paris–Toul railway.

At the beginning of 1916 Verdun was in a reentrant curve in the German lines which surrounded it through an arc of 240 degrees. From Boureuilles on the Aire River the German line ran easterly to a point on the Meuse River ten miles north of Verdun, and then around the town via Orne and Etain and Fresnes to St. Mihiel. If Verdun could be taken, the German line would be much shortened and the dangerous St. Mihiel salient would be removed. Besides the reasons above given for the great German attack on Verdun, its fall would have a great moral effect. To the French people Verdun was the bulwark of their eastern system of defenses. Military men understood that the forts were no longer proof against modern artillery, but this the people did not understand and the government would have found it difficult to explain its fall.

The town of Verdun lies in the valley of the Meuse River and its fortifications form an important bridgehead. It was first fortified many centuries ago and has been repeatedly besieged. At the time of the Franco–German war it was simply a walled town with a citadel but without exterior forts. After that war it was surrounded by a girdle of forts on the circumference of a circle with a five-mile radius; this was considered a sufficient radius to protect the town from bombardment. With the development of artillery new forts were added and the existing forts strengthened by armored turrets. During the first year of the war it was not attacked and after the German retreat, the lines of the 3d French Army were developed in its front and the commander of the fortress commanded only the garrisons of the forts. Due to calls for heavy artillery, the forts were gradually dismantled of all but turret guns and in August, 1915, the commander of the fortress, General Herr, took over the exterior lines. His command extended from the right of the 3d French Army in the Argonne to the left of the 1st French Army just north of St. Mihiel. Two divisions were west of the Meuse, five east of the Meuse, and about two in reserve. In his front was about an equal force of German troops. Under the fortress commander steps were taken to strengthen the lines previously intrenched but the works were far from complete at the beginning of 1916.

According to General Falkenhayn, the Chief of Staff of the German Army, the decision to attempt the capture of Verdun was made

early in the winter of 1915–1916 after the close of operations on the other fronts. It was ascertained that seventeen or eighteen divisions in addition to those already on this front could be made available for the attack and these were withdrawn from the front and rested and trained. The total front of attack was assigned to the German Crown Prince who commanded the V German Army who at once began the installation of the heavy artillery which was to be employed in the attack. The first stage of the German attack was designed to force the French troops out of their lines east of the Meuse River both above and below Verdun and across the river. In order to understand their plan a short description of the French position is necessary.

Both north and south of Verdun there is a plateau running north and south six or seven miles wide which commands the river to the west and the Woevre plain to the east by several hundred feet. The plateau slopes steeply to the west and east and is cut by deep ravines which carry the drainage both east and west. These ravines break up the surface into a number of irregular ridges. The outer French line crossed this plateau from the Meuse River to the Woevre plain about 10 miles north of Verdun. This part of the line, six or seven miles long, consisted of a number of strong points formed of villages and woods organized for defense and formed the main line of defense of considerable depth. Its weakness lay in the intervals between the strong points not so strongly organized and the lack of adequate covered communications connecting it with the country in rear. A second line had been selected some two miles in rear but time had not permitted of its thorough organization. A third position had been selected five miles in rear of the outer line where Fort Douaumont, a great masonry fortress had been constructed before the war on the highest point of the ridge. Fort Douaumont was designed to command the entire ridge to the north but like the other forts had been dismantled and left to a weak garrison. From the base of the plateau the French outer line formed an arc of circle with a 10-mile radius through the Woevre plain and again reached the plateau southwest of Fresnes.

The main German attack was to be made from the north between the Meuse River and the plain which if successful would cause the French to evacuate their lines in the Woevre plain. It was then thought if the attack could be vigorously followed up the French would retire across the Meuse River. The front selected for the main attack was a favorable one since there were extensive woods behind the German front which would conceal the heavy artillery with which it was designed to open the attack.

The preparations made by the Germans in these woods did not escape the observations of the French air planes and about the middle of January the commander of the fortress made a report and requested reinforcements. About the same time, General Joffre sent the Chief of Staff of the French Army, General Castelnau, to report on the situation. Castelnau advised that the second line should be completed and other lines undertaken farther to the rear. At this time however the weather was very unfavorable for work and little could be effected. At this time, the 2d French Army under General Petain was in rest areas after the operations in Champagne, and in the early part of February some of its divisions were moved up within supporting distance of Verdun.

During the early part of February, the three German corps assigned to the main attack, were moved into line across the plateau north of Verdun and the lines in the Woevre plain were reinforced. Fogs and rain prevented the opening of the attack until the morning of February 21 when about 7 a. m. an intense fire was opened from the Argonne to St. Mihiel and demonstrations were made on other fronts. The infantry moved forward just before dusk.

The method of attack was a further development of the methods of attack employed by Foch and Castelnau in France and by Mackensen in Galicia in 1915. It is described by a French writer as follows:

"The principle governing all these attacks is that of avoiding a struggle of men against materiel. It is by the employment of artillery alone that one must overcome the obstacles developed during the war of positions; it is the artillery that must make the breach in the defenses. In Artois (May, 1915), we were satisfied with making breaches in the enemy's wire entanglements. In Champagne (September, 1915), we went a step farther; we employed the artillery for three days in minutely destroying the positions themselves. This method almost succeeded. What lessons did the Germans draw from these attacks? In the first place, they shortened the duration of the preparation substituting greater violence making it at the same time shorter and more powerful. Time is half the value of preparations in war. To shorten the preliminary preparations is to increase the surprise. This is further multiplied by the intensity of the fire; hence the inordinate increase in the number and caliber of the pieces. To shower in a given time a greater number of tons of steel and explosive is to concentrate all their effects. The material effect is doubled by the moral effect. The third characteristic of the system is the depth of the zone covered; no longer is there safety in a zone from fifteen to twenty kilometers in depth. Bridges, cross-roads, ravines, etc., are all enveloped in the same universal storm and the same terror.

"Finally, to complete the demoralization, the Germans added to the explosive shells an unknown proportion of tear and suffocating gas shells. At the end of some hours of this annihilating fire, even the forms of objects changed. Villages are effaced and seem to be swallowed up. In the place of woods there is only an entanglement of trunks and abatis. The face of nature is as strange as the landscape of another world. Nothing is more German than this manner of operating with sovereign force producing in a few moments with mechanical power the ravages of a cyclone.

"In this system it is artillery which attacks and becomes the assaulting arm. The guns have the effect of a battering ram which levels all before it and behind marches the infantry almost without loss. It is this which permitted the Germans, among other novelties, to omit the construction of approach trenches and jumping-off parallels. This circumstance (it was repeated March 21, 1918), is one of those which served to deceive us as to the imminence of the attack. As long as the enemy was not seen to push forward his trenches to the distance for assault, there was nothing to fear. To jump off under artillery fire, advance through our barrage fire and entanglements in the open for a distance of 500 meters was a folly which found everyone incredulous. Now, these jump-off trenches were constructed in Champagne but were omitted at Verdun. The troops assembled for the attack in the front lines themselves. The Germans paid dearly for this audacity; their reserves had to suffer from our counter-preparation. But it was a risk to run. Save in a few places, the two infantries were nowheres in contact. The mean width of "no man's land" was 500 to 800 meters. At certain points, the Germans attacked at the almost incredible distance of 1,100 meters.

"The technique of the attack was altered to conform to this new employment of artillery. Each unit received a definite mission with an objective limited in width and depth; before taking possession of it, it detached a wave of scouts to verify its destruction. If the work was not thoroughly prepared the scouts returned to the lines and demanded a new preparation by artillery. The waves of assault follow each other at a distance of 80 meters: in front a line of engineers and grenadiers; next the main body in a line of skirmishers; then a section of the reserve with ammunition, sandbags, tools, and men to fill the ranks of the first wave. This line is followed by a second similar one to pass the first or to receive it if it is repulsed and to take up the attack. At this moment the attack is pursued by turning movements gliding through covered country or by ravines; in this manner centers of resistance are made to fall. The advance is continually marked by rockets. Nothing is more impressive than this resistless march surmounted by a multitude of aigrets, by chaplets of multicolored fires. The chiefs of section had white brassards by which they could be recognized which many of our men took for Red Cross brassards and led to innumerable mistakes. Finally, the order was not to obstinately persist in attempting to overcome a resistance unbroken by artillery but each unit was to halt and await the new action of the guns."

The principal attack was made on the front held by two French divisions who had to sustain the attack until the night of the 23d. According to the French official accounts, the method employed by the Germans was to subject each strong point to intense artillery fire and then surround it with a barrage while the infantry and engineers advanced to secure and intrench it. Snow storms began on the 22d and in very trying weather the two French divisions made desperate attempts to hold their first line but were slowly driven back. By the night of the 23d, the first line was wholly lost; then two divisions of the 2d French Army took over the defense. The battle continued during the 24th and the French lost their second line and fell back to the vicinity of Douaumont. That night the situation seemed critical and General Langle, who commanded the central group, directed the French divisions in the Woevre plain to evacuate their lines and fall back to the plateau and intimated to French headquarters that it might be necessary to withdraw to the west bank of the Meuse. Orders were at once sent to hold the east side of the Meuse. General Castelnau was sent to Verdun to take charge of the situation and the entire 2d French Army was ordered to go to the support of Verdun. On the 25th the arrival of more French troops checked the German advance in the vicinity of Fort Douaumont but taking advantage of the fog, an enterprising lieutenant led his company to the fort and by scaling the walls took possession of it with little opposition.

With the arrival of General Castelnau on the morning of the 25th, the French situation was clarified as it was now determined to hold the east bank of the Meuse and push forward troops as rapidly as possible to prevent the further advance of the Germans. The German troops first engaged were now exhausted and had to be withdrawn from the line in order to enable them to be reorganized and replace their losses. There was therefore a lull in the attack. That afternoon General Petain reported to take charge of the operations. Under his supervision the further defense was organized and the troops as they arrived placed in position. In a short time the artillery was strengthened to nearly 2,000 pieces.

The position to which the Germans had advanced on the east bank of the Meuse was far in advance of the position they occupied on the west bank and in a short time their situation was rendered very trying by the artillery established by Petain on the west bank. To relieve the situation, on March 6th, a determined attack was opened on the west bank between the Argonne and Meuse. Here the French front line followed Forges creek but in

rear of this line was a ridge of which the commanding points were Mort Homme or 295 meter hill and 304 meter hill. In a series of desperate attacks which lasted until May the Germans succeeded in driving the French back to the crest of the ridge but were unable to secure the mastery of the ridge.

The defense was conducted by General Petain until May 1, when the opposing lines were more or less consolidated. Petain was now promoted to the command of the central group and was relieved by General Nivelle. Having consolidated their position on the Douaumont line and at the base of the plateau, the Germans now sought to advance by siege methods. So little progress was made however that Nivelle was able to make a lodgment in Fort Douaumont in May and remain there a few days. Early in June the Germans captured Fort Vaux after a classic resistance and reached the top of the plateau south of Douaumont. About the last of June, by sapping and mining, the Germans reached Fleury about two miles south of Douaumont; there was still one spur between them and Verdun crowned by the ruins of Fort Souville. As the great British and French attack on the Somme began July 1, the Germans made a last attempt to reach Verdun on July 11 and 12. A few troops reached Fort Souville but were unable to consolidate their position and fell back to Fleury. During the period from February to July, about 45 German and 65 French divisions were engaged in this great battle.

From the middle of July to the latter part of October, there were only minor operations on this front as the Somme attack absorbed the reserves. In the latter part of October however French operations on the Somme died down and reserves were sent to General Nivelle for a counter-attack.

On October 24, General Nivelle recaptured the Douaumont position with the ruins of the fort and the Germans evacuated Fort Vaux November 1. In December just before he was assigned to the command of the French armies in France General Nivelle made a last counter-attack and recaptured the ridge along which the second French line had originally been organized.

At Verdun the Germans met with their fourth great check on the west front. In its effects on the morale of the two countries, it was probably more important even than the battles of the Marne and Flanders. The losses on both sides were very heavy as division after division was sent into the fight and withdrawn in a short time to be sent to a quiet sector or to a rest camp to replace its casualties. In the French Army these casualties were heavier in

the early stages when it was weak in artillery, and in the German Army in the later stages.

When the attack began, the French were much handicapped by the difficulty of bringing up troops, ammunition and supplies, by the German command of the two principal railways running into Verdun. As a substitute, thousands of laborers were employed in widening and improving the roads upon which motor truck trains were organized and run on a regular schedule. The road from Bar le Duc to Verdun became famous as the "Sacred Way." Light and standard gauge railways were added as rapidly as possible.

Somme Drive.—When the attack on Verdun began the British Army with its new divisions relieved the French 10th Army on the Arras front to permit it to go to the relief of Verdun and the British front was made continuous from the north of Ypres to the Somme River. From north to south the line was held by the 2d, 1st, 3d and 4th armies under Generals Plumer, Horne, Allenby and Rawlinson. On the right of the British, astride the Somme River, was the 6th French Army, General Fayolle, and on its right the 10th French Army, General Micheler; these were under the command of General Foch. Between January and July, 1916, the strength of the British Army on this front had been increased from 450,000 bayonets and sabres to 660,000 and the artillery and ammunition supply was now superior to that of the Germans.

The Somme drive was made mainly by the 4th British and 6th French armies although the armies on either flank also took part in the action. The main attack was made on a front of about 25 miles in an air line or 30 miles measured along the trenches.

In his report on the British operations General Haig says:

"The principle of an offensive campaign during the summer of 1916 had already been decided by the Allies. The various possible alternatives on the western front had been studied and discussed by General Joffre and myself and we were in complete agreement as to the front to be attacked by the combined French and British armies. Preparations for our offensive had made considerable progress; but as the date at which the attack should begin was dependent upon many doubtful factors, a final decision on that point was deferred until the general situation should become clearer.

"Subject to the necessity of commencing operations before the summer was too far advanced, and with due regard to the general situation, I desired to postpone an attack as long as possible. The British armies were growing in numbers and the supply of ammunition was steadily increasing. Moreover, a very large proportion of the officers and men under my command were still far from being fully trained, and the longer the attack could be deferred the more efficient they would become. . . . . .

"By the end of May the pressure of the enemy on the Italian front had assumed such proportions that the Russian campaign was opened early in June, and the brilliant successes gained by our allies against the Austrians at once caused a movement of German troops from the western to the eastern front. This, however, did not lessen the pressure on Verdun. The heroic defense of our French allies had already gained many weeks of inestimable value and had caused the enemy heavy losses; but the strain continued to increase. In view, therefore, of the situation in the various theatres of war, it was eventually agreed between General Joffre and myself that the combined offensive should not be postponed beyond the end of June."

In his report General Haig gives an account of some of the preparations that were made in preparing for this attack.

"Vast stocks of ammunition and stores of all kinds had to be accumulated beforehand within convenient distance of our front. To deal with these, many miles of new railways—both standard and narrow-gauge—and trench railways and long causeways were built over marshy valleys. Many additional dugouts had to be provided as shelter for troops, for use as dressing stations, for the wounded, and magazines for storing ammunition, food, water, and engineering material. Scores of miles of deep communicating trenches had to be dug as well as trenches for telephone wires, assembly and assault trenches, and numerous gun emplacements and observation posts.

"Important mining operations were undertaken and charges laid at various points beneath the enemy's lines.

"Except in the river valleys, the existing supplies of water were hopelessly insufficient to meet the requirements of the numbers of men and horses to be concentrated in this area as the preparations for our offensive proceeded. To meet this difficulty many wells and borings were sunk, and over one hundred pumping plants were installed. More than one hundred and twenty miles of water mains were laid, and everything was got ready to insure an adequate supply of water as our troops advanced."

The British were assigned the front extending from Gommecourt to Maricourt; the French from Maricourt to Foucaucourt. The 4th British Army consisting of five corps, eleven divisions, was to attack from Serre to Maricourt and the 6th French Army consisting of three corps, from Maricourt to Foucaucourt. Between Serre and Gommecourt the attack was to be made by a corps of the 3d British Army.

The position attacked by the British troops is described by General Haig as follows:

"The enemy's position to be attacked was of a very formidable character, situated on a high, undulating tract of ground, which rises to more than 500 feet above the sea level, and forms the watershed between the Somme on the one side and the rivers of south-western Belgium on the other. On the southeast to west-north-west

the ground falls in a series of long irregular spurs and deep depressions to the valley of the Somme. Well down the forward slopes of this face the enemy's first system of defense, starting from the Somme near Curlu, ran at first northwards for 3,000 yards, then westwards for 7,000 yards to near Fricourt where it turned nearly due north, forming a great salient angle in the enemy's line.

"Some 10,000 yards north of Fricourt the trenches crossed the River Ancre a tributary of the Somme, and still running northwards passed over the summit of the watershed, about Hebuturne and Gommecourt, and then down its northern spurs to Arras.

"On the 20,000 yard front between the Somme and Ancre the enemy had a strong second system of defense, sited generally on or near the southern crest of the highest part of the watershed, at an average distance of from 2,000 to 5,000 yards behind his first system of trenches.

"During nearly two years preparation he had spared no pains to render these defenses impregnable. The first and second systems each consisted of several lines of deep trenches, well provided with bomb-proof shelters and with numerous communication trenches connecting them. The front of the trenches in each system was protected by wire entanglements, many of them in two belts forty yards broad, built of iron stakes interlaced with barbed wire, often almost as thick as a man's finger.

"The numerous woods and villages in and between these systems of defense had been turned into veritable fortresses. The deep cellars usually to be found in the villages, and the numerous pits and quarries common to a chalk country, were used to provide cover for machine guns and trench mortars. The existing cellars were supplemented by elaborate dugouts sometimes in two stories, and these were connected up by passages as much as thirty feet below the surface of the ground. The salients in the enemy's line, from which he could bring enfilade fire across his front, were made into self-contained forts, and often protected by mine fields; while strong redoubts and concrete machine gun emplacements had been constructed in positions from which he could sweep his own trenches should these be taken. The ground lent itself to good artillery observation on the enemy's part, and he had skilfully arranged for cross fire by his guns.

"These various systems of defense, with the fortified localities and other supporting points between them, were cunningly sited to afford each other mutual assistance and to admit of the utmost possible development of enfilade and flanking fire by machine guns and artillery. They formed, in short, not merely a series of successive lines, but one composite system of enormous depth and strength.

"Behind his second system of trenches, in addition to woods, villages and other strong points prepared for defense, the enemy had several other lines already completed; and we had learned from aeroplane reconnaissance that he was hard at work improving and strengthening these and digging fresh ones between them and still farther back.

"In the area above described, between the Somme and the Ancre, our front line trenches ran parallel and close to those of the enemy, but below them. We had good direct observation on his front system of trenches and on the various defenses sited on the slopes above us between his first and second systems; but the second system itself, in many places, could not be observed from the ground in our possession, while, except from the air, nothing could be seen of his more distant defenses.

"North of the Ancre, where the opposing trenches ran transversely across the main ridge, the enemy's defenses were equally elaborate and formidable. So far as command of ground was concerned, we were here on practically level terms; but, partly as a result of this, our direct observation over the ground held by the enemy was not so good as it was farther south. On portions of this front, the opposing first line trenches were more widely separated from each other; while in the valleys to the north were many hidden gun positions from which the enemy could develop flanking fire on our troops as they advanced across the open."

The part of the front attacked by the French north of the Somme was of the same character as that just described. The front south of the Somme was in more level ground, but otherwise was equally strongly organized.

The front attacked was held by the II German Army now commanded by General Fritz Bulow and was held by five divisions north of the Somme and three south of it. Three divisions were in reserve and a fourth resting after Verdun was farther in rear. Those south of the Somme later became the I Army.

The primary object of the attack was to break the German line on a wide front and compel a return to open warfare. If not successful in this, the attack would at least relieve the pressure at Verdun, prevent the Germans from moving troops to other fronts, and wear down the strength and morale of the German forces.

When this drive was made, the war had been in progress nearly two years. During that time both the French and British governments had made up the deficiency in heavy mobile artillery and ammunition which had hampered their previous attacks and were prepared to prosecute the attack daily for months. At this time Great Britain had about seventy divisions besides the colonial contingents, and although all were not available on this front, the British commander had sufficient troops to withdraw and replace exhausted divisions, and continue the attack. In his description of the attack, General Haig mentions 45 divisions that took part in the attack and states that by the end of August the Germans had reinforced the 6 divisions originally employed by 30 divisions.

The air service now included all its various branches and had reconnoitering planes, artillery service planes and bombing planes. By the aid of reconnoitering planes, the enemy's lines had been carefully mapped and studied.

The troops had been well trained in trench fighting and were well provided with trench mortars, bombs and machine guns, and were prepared to utilize gas and smoke clouds as well as gas shells.

As in all previous attacks made by the Allies, this attack began with a prolonged artillery bombardment of greater intensity than any previously attempted, due to the more numerous and more powerful artillery. While General Foch employed 1,000 guns in the attacks of 1915, he now had 2,000 guns and some 6,500,000 shells to carry on this attack on the part of the French.

"Defenses of the nature described could only be attacked with any prospect of success after careful artillery preparation. It was accordingly decided that our bombardment should begin on the 24th of June and a large force of artillery was brought into action for that purpose.

"Artillery bombardments were also carried out daily at different points on the rest of our front, and during the period from the 24th of June to 1st of July gas was discharged with good effect at more than forty places along our line upon a frontage which in total amounted to over 15 miles. Some 70 raids, too, were undertaken by our infantry between Gommecourt and our extreme left north of Ypres during the week preceding the attack, and these kept me well informed as to the enemy's dispositions, besides serving other useful purposes.

"On July 1st, at 7:30 a. m., after a final hour of exceptional violent bombardment, our infantry assault was launched. Simultaneously the French attacked on both sides of the Somme, cooperating closely with us.

"The British main front of attack extended from Maricourt on our right, round the salient at Fricourt, to the Ancre in front of St. Pierre Divion. To assist this main attack by holding the enemy's reserves and occupying his artillery, the enemy's trenches north of the Ancre, as far as Serre, inclusive, were to be assaulted simultaneously; while farther north a subsidiary attack was to be made on both sides of the salient at Gommecourt.

"Just prior to the attack the mines which had been prepared under the enemy's lines were exploded, and smoke was discharged at many places along our front. Through this smoke the infantry advanced to the attack with the utmost steadiness, in spite of the very heavy barrage of the enemy's guns."

As a result of the preliminary bombardment, the German first line on either side of Fricourt where the line could be enfiladed was practically destroyed, and when the British infantry attack was launched at 7:30 a. m. July 1st, the village of Montauban was cap-

tured on the right and farther to the left the infantry passed through Mametz into the valley beyond. Fricourt was surrounded and taken the following day. North of the Albert–Bapaume road however the enemy's line could not be penetrated. After the first attack had exhausted itself and the lines were consolidated it was found that the enemy's line had been penetrated over a front of six miles, the villages of Boisselle, Fricourt, Mametz and Montauban had been captured and about 6,000 prisoners taken.

It was now decided to temporarily abandon attacks north of the Albert–Bapaume road by the left wing of the 4th army which later became the 5th army and concentrate the efforts to the south of that road. Between the positions captured and the German second line through Bazentin–le–Petit and Longueval there were a number of strongly organized woods that offered serious resistance but were gradually captured during the first ten days of July.

On July 11, the British had advanced far enough to begin the artillery attack on the second German line between Bazentin–le–Petit and Longueval. After three days' bombardment the infantry was launched on the 14th.

"In the early hours of the 14th July the attacking troops moved out over the open for a distance of from 1,000 to 1,400 yards, and lined up in the darkness just below the crest and some 300 to 500 yards from the enemy's trenches. Their advance was covered by strong patrols, and their correct deployment had been assured by careful previous preparations. The whole movement was carried out unobserved and without touch being lost in any case. The decision to attempt a night operation of this magnitude with an army, the bulk of which has been raised since the beginning of the war, was perhaps the highest tribute that could be paid to the quality of our troops. It would not have been possible but for the most careful preparation and forethought, as well as thorough reconnaissance of the ground, which was in many cases made personally by division, brigade and battalion commanders and their staffs before framing their detailed orders for the advance."

The attack was successful and the second German line from Bazentin–le–Petit to Longueval was captured. The British line now ran from la Boisselle via Contalmaison to Bazentin–le–Petit and from Longueval southward between Montauban and Guillemont. The Germans however had well organized the ground in front and on either flank. It was not until the latter part of August that the British were able to take the village of Pozieres on the left. On the right, the French captured Maurepas about the same time and early in September Guillemont was taken.

The Allies were now in position to attack the German third line north of the Somme.

"A methodical bombardment was commenced at 6 a. m. on the 12th of September and was continued steadily and uninterruptedly till the moment of attack. At 6:20 a. m. on the 15th of September the infantry assault commenced, and at the same moment the bombardment became intense. Our heavily armored cars, known as 'Tanks,' now brought into action for the first time, successfully cooperated with the infantry, and coming as a surprise to the enemy rank and file gave valuable help in breaking down their resistance.

"The advance met with immediate success on almost the entire front attacked. At 8:40 a. m. tanks were seen entering Flers, followed by large numbers of troops. Fighting continued at Flers for some time but by 10 a. m. our troops reached the north side of the village and by midday had occupied the enemy's trenches for some distance beyond. On our right our line was advanced to within assaulting distance of the strong line of defense running before Morval, Lés Boeufs and Gueudecourt. Our success made it possible to carry out during the afternoon that part of the plan which provided for the capture of Martinpuich.

"The result of the fighting of the 15th of September and following days was a gain more considerable than any which had attended our arms in the course of a single operation since the commencement of the offensive. In the course of one day's fighting we had broken through two of the enemy's main defensive systems and had advanced on a front of over six miles to an average depth of a mile. In the course of this advance we had taken three large villages each powerfully organized for prolonged resistance. Two of these villages had been carried by assault with short preparation in the course of a few hours' fighting. . . . . .

"Preparations for our further advance were again hindered by bad weather but at 12:35 p. m. on the 25th of September, after a bombardment commenced early in the morning of the 24th, a general attack by the Allies on the whole front between the Somme and Martinpuich. The objectives on the British front included the villages of Morval, Les Boeufs and Gueudecourt and a belt of country about 1,000 yards deep curving round north of Flers to a point midway between that village and Martinpuich. By nightfall all these objectives were in our hands with the exception of the village of Gueudecourt. On our right our allies carried the village of Rancourt."

Thiepval on the left and Combles on the right were taken a few days later.

After September the battle died down somewhat and ended about the middle of November when the weather made further operations impracticable. During the months of October and November, the British line was advanced to include the village of Sars on the Albert–Bapaume road and Beaumont Hamel north of the Ancre River. The French on the right advanced to the Bapaume–Peronne road from Sailly southward to the Tortille River.

South of the Somme River, on the first day of the great drive, the French had been even more successful than the British in gaining ground and on July 1, the villages of Herbecourt, Flaucourt, Assevillers and Fay with all the included area were captured; after that the progress was slower and soon died down. From the 10th of July, the main attacks of the French were made by General Fayolle on the right of the British north of the Somme.

The great drive of the Allies on the west front in 1916 had not resulted in a return to open warfare but it had been far more successful than the German attack on Verdun. In this great offensive there had been employed practically every British and German division that could be made available on that front. As at Verdun, the divisions were engaged until exhausted and then sent to quiet fronts or rest areas to be replaced by new divisions. The immediate effects of the drive had been to relieve the pressure on Verdun and permit the French to regain much of the ground lost, to prevent the sending of German troops to other fronts and to wear down the morale and resistance of the German Army. The full effect of the wedge driven into the German front did not become apparent until the following spring. As might be expected from the character of the fighting maintained for months the casualties were very heavy in all three armies. The British casualties have been given as about 500,000.

CHAPTER IX.

OPERATIONS ON THE ITALIAN, RUSSIAN, RUMANIAN AND GREEK FRONTS IN 1916.

At the beginning of 1916 the situation on the Italian, Russian and Greek fronts was as follows:

On the Italian Isonzo front south of the valley of the Vippaco River, the 3d Italian Army had gained a bare foothold on the western edge of the Carso plateau east of the Isonzo River; north of Gorizia, on the west side of the Isonzo River, the Austrians held the ridge of Sabotino and Podgora, about a mile wide and extending about five miles along the river; ten miles north of Gorizia the Italians had a bridgehead over the Isonzo at Plava but had not been able to develop it as the surrounding heights were still held by the Austrians. The Podgora–Sabotino–Plava front was held by the 2d Italian Army; the 1st and 4th Italian armies held the mountain frontier between Italy and the Austrian Tyrol from the Isonzo westward to Lake Garda. The Austrians had strongly intrenched their Isonzo front and as the Italians had entered the war badly trained and equipped for trench warfare they had made little progress during 1915. During the winter of 1915–1916 efforts were made to repair these deficiencies.

On the Russian front, the great retreat had stopped and efforts were made to reorganize and equip the Russian armies for a new campaign. The Germans were engaged in repairing roads and railways and organizing the supply of the new front. In the north, notwithstanding repeated attacks, the Russians succeeded in holding the line of the Dwina River with the important towns of Riga and Dwinsk and the Germans had only a bridgehead midway between these towns, which they were unable to enlarge. From Dwinsk southward to the great marshes along the Pripet River the Russian line ran almost due southward to the mouth of the Styr River, leaving Smorgon, Baronovitchi and Pinsk in the possession of the Germans. Baronovitchi had been the G. H. Q. of the Russian armies before the retreat. From the Pripet marshes the Austrian line followed the Styr River through Lutsk and Dubno and passing to the west of Tarnopol followed the Strypa and Dniester rivers to the Russian frontier and along the frontier to Rumania.

During the winter of 1915–1916 the northern group of Russian armies fell temporarily to General Plehve who in the spring of 1916

was succeeded by General Kuropatkin, who had been commander-in-chief of the Russian armies in the Russo–Japanese war. The central group remained under the command of General Ewert. General Ivanov was relieved from the command of the southern group during the winter and was attached to headquarters; he was succeeded by General Brusilov who had commanded the 8th Russian Army during 1914–1915.

Under the new Minister of War great efforts had been made to reorganize and equip the armies but on account of the isolated position of Russia and the demoralization of the railway systems this could only be partially effected. Large supplies of ammunition were however received from Great Britain and France. Confidence in the government had been shaken by the great retreat. Inefficiency and dishonesty in the War Department were believed to be largely responsible for this retreat.

The military situation on the Russian front had been improved for the Russians by the withdrawal of German and Austrian troops, some of whom had been sent to Serbia, some to France, and some to Italy. At this time the northern and central groups of Russian armies, which extended from Riga to the Pripet marshes were facing the four German armies under Hindenburg, whose front extended from Riga to the south of Smorgon, and the central group consisting of the IX German Army with some Austrian troops which prolonged the line to the marshes. The southern Russian group was opposed mainly by Austrian troops; in the center was an Austro–German Army under German command.

The British and French troops that had been withdrawn from Gallipoli and sent to Salonica had formed a great intrenched camp at Salonica. Here it was proposed to form a great allied army of French, British, Italian, Serbian and Russian troops for future operations in Serbia and Bulgaria. The organization of such a force would take considerable time and in the meantime the Allied forces would remain necessarily on the defensive. The Bulgarian armies were on the Greek frontier not daring to invade that kingdom lest it should lead the Greeks to join the Allies.

Operations on the Russian Front During the Attack on Verdun.— When the Germans began their attack on Verdun, the Russians were requested to attack the Germans in the east to prevent their sending any troops to the west front. Attacks were therefore made at various points, but the main one was made by two armies of the central group east of Vilna in March. The attack led to some severe fighting and probably accomplished its purpose, but did not effect

any change in the position of the lines. While they were unable to assume the offensive, the Germans had strongly organized their lines as they desired to hold all the territory gained in order to draw from it supplies as the Allied blockade had cut them off from supplies through neutral states. Minor attacks were made on this front during the year but without material results.

Austrian Attack in the Trentino, May–June.—As previously stated, the Austrian plan for 1916 contemplated an attack on the Italian front before the Italians had recovered from the effects of the campaign of 1915. The attack was delayed until May, because the proposed operations were to be made in the mountains which would not be free from snow before that time.

When Italy declared war on Austria in May, 1915, the 1st and 4th Italian armies were deployed along the mountain ranges that separated the Austrian Tyrol from Italy. The main duty of these armies was to prevent any Austrian forces from crossing the frontier into Italy, and especially any large body of Austrian troops that might attempt to reach the Italian plain and thus threaten the communications and lines of retreat of the 2d and 3d Italian armies that were attacking the Austrians along the Isonzo front. During 1915 there were no important operations along the Tyrolean front as the reserves of both armies were needed elsewhere. There were however a number of minor but spectacular operations for the possession of mountain peaks.

During the winter and spring the Austrians began to send troops to Trent from the Russian front, from Serbia and from the interior. It was proposed to organize a strong force in the province of Trent or Trentino and advance into Italy over the mountains limited by Lake Garda in the west and the Brenta River in the east. In this section were a number of valleys which led to the crest of the mountain boundary and thence to the plains of Italy.

Had the Austrians been able to concentrate a sufficient force in Trentino the campaign might have had very important results. Had they been able to establish themselves in a position where they threatened the lines of supply of the Italian armies on the Isonzo, the contest between the two armies would have been drawn to this front. The Austrian forces were however too weak to admit of this concentration being made in sufficient force and it resulted merely in a demonstration to divert attention from the Isonzo front.

The front that was about to be attacked was held by the 1st Italian Army which had but little experience in modern warfare and had not thoroughly intrenched the line it then occupied. Although the

concentration of Austrian troops about Trent was known, the commander of the Italian Army was over confident and did not take the necessary steps to strengthen his positions.

The attack began in the middle of May and was preceded by a heavy bombardment. It was the first time guns either in large numbers or of large calibre were employed on this front and the bombardment produced a demoralizing effect on the Italian troops. The Italian line was easily penetrated and day after day the Austrians advanced into the mountains until at the end of two weeks they were fifteen miles in advance of their original line and had captured the Italian towns of Asiago and Arsiero. By this time however the attack had exhausted itself and little further progress was made in the first half of June. At the request of the Italians, an attack by the southern group of the Russian armies was launched early in June and the Austrians began to recall their troops.

As their advanced positions could not be held by a diminished force the Austrians fell back to an intermediate position between their original lines and their farthest advance. No serious fighting followed this withdrawal as the Italians returned to their attacks on the Isonzo front.

Advance of Southern Group of Russian Armies June–August.—With the exception of the 3d Russian Army, the southern group of Russian armies had experienced fewer losses and less demoralization than the northern and central groups. On their right they had successfully held the important railway junction of Rovno and had late in 1915 recaptured Lutsk which they later evacuated. From Tarnapol to the Dniester River they were still in the enemy's territory. They were confronted mainly by Austrian troops whom they had repeatedly defeated in 1914 and 1915.

Brusilov had under his command four armies and was later reinforced by a fifth from the central group. When called on in May to assist the Italians by a counter-attack in the east he was ready to act. At this time, the Russians had on the east front some 140 divisions of infantry and 33 divisions of cavalry, probably depleted in strength.

On the 4th of May after a preliminary bombardment Brusilov's armies were launched in an attack on a front of one hundred and fifty miles. In the north where two of his armies were operating astride the railways running from Rovno to Kovel and Lemberg, his success was immediate. The Austrian line was broken on a wide front; Lusk twenty miles in rear of the Austrian line was cap-

tured on May 6, and Dubno a few days later. As soon as the Austrian line was broken, German troops were sent southward to reinforce that front and German commanders took charge of operations. Two weeks after the opening of the campaign the line again became stabilized; but the Russians had in the meantime driven a wedge into the original Austrian line on a front of about eighty miles and to a depth of nearly forty miles. The Russians had not however succeeded in reaching Kovel on the Rovno–Kovel railway nor had they reached Brody on the Lemberg railway. With a new army brought from the north of the Pripet marshes Brusilov attempted to force the crossings of the Styr River on his right but without success. Practically no further progress was made in the direction of Kovel during the months of July and August.

Between Brody and the Dniester River the first Russian attack in June met with little success and the Austro-German troops successfully resisted all attacks on their line along the Strypa River. In the latter part of July, Brusilov captured Brody and compelled the Austro-Germans to fall back from the Strypa River to the Lipa River, fifteen miles to the west, during the month of August.

In the extreme south, between the Dniester and Pruth rivers, the southern Russian armies penetrated the Austrian line and Czernowitz, the capital of Bukowina, was captured about the middle of June. From Czernowitz this army advanced southward and westward capturing the greater part of Bukowina. It also advanced along the railway toward Lemberg as far as Stanislau at the foot of the Carpathians, which was reached in August.

About the middle of August the attack of the southern Russian armies had exhausted itself and no farther progress was made.

Although Brusilov had forced the retreat of the Austrian armies on a wide front, relieved the pressure on the Italian front, and had compelled the Germans to still further reduce their forces on the northern Russian front, the northern Russian armies made no serious effort to take advantage of this situation, and therefore his own advance was stopped.

The principal effect of his success was to cause Rumania to declare war on Austria, which she did in the latter part of August. To aid Rumania, Russian troops had to be sent by Brusilov to the Rumanian frontier of Austria and to southern Rumania thus reducing the strength of his armies and preventing further efforts on his own front.

Operations on the Italian Front August–December.—Notwithstanding the Austrian attack from the Trentino in May and June,

the 2d and 3d Italian armies continued their operations against the Austrian positions immediately to the north and south of Gorizia and by sapping and mining had by August reached a position from which an assault could be delivered with some promise of success.

The assault was launched both north and south of Gorizia on August 6, after a short preliminary bombardment of great intensity. On the Carso plateau the fighting was very severe and on the 9th the Austrian line was broken and by the 12th the Austrians had been driven back three miles to their second line which they held. During the remainder of the year the Italians made some further progress on this front but no important ground was gained. North of Gorizia, all the Austrian positions on the heights of Sabotino and Podgora west of the Isonzo River were captured. The town of Gorizia was evacuated by the Austrians on August 9; they retired to a new line on the hills overlooking the town about a mile to the east. This position could not be attacked from the front and it was necessary to maneuver the Austrians out by turning movements, either on the Carso plateau or from the bridgehead of Plava.

During the remainder of 1916, as previously stated, attempts were made by the Italians to advance along the Carso plateau but the Austrian lines proved too strong. It is probable that the Italian success on the Isonzo in the first half of August also had its influence on the Rumanian government and the Russian plan of campaign.

Salonika.—During the winter of 1915–1916 the Allied forces at Salonika had been strongly reinforced by British and French troops and in April this force was still further increased by the arrival of the reorganized Serbian Army and a division of Russian troops. The Allies now occupied all the territory south of the Greek frontier from the Struma River on the east to Lake Ostrovo in the west with the British on the right, the French and Russians in the center and the Serbs on the left. The Italians occupied the country around Avlona on the Adriatic still farther west. There was now a large force at Salonika but the situation was unsatisfactory to the Allied Powers because the attitude of the Greek government in maintaining neutrality and the friction which necessarily resulted from the occupation of neutral territory. In May the Bulgarians advanced and occupied a Greek fort on the British front; as the Greek government took no action, in June the Protecting Powers ordered the Greek government to demobilize the Greek Army.

In the summer of 1916 Rumania decided to enter the war on the side of the Allies; one of her conditions was that the Allied forces

at Salonika should begin an offensive campaign two weeks in advance of her declaration of war to prevent Bulgaria from taking part in operations against her. About the 1st of August, therefore, General Sarrail was made commander-in-chief of the Allied forces and began operations in the center against the Bulgarians on his front.

The Bulgarians replied by invading Greece and occupying the line of the Struma River and the fortress of Kavala on the coast in Macedonia and the town of Florina west of Lake Ostrovo. Not being able to advance in the center, Sarrail transferred his offensive to the west and the French and Serbs captured Florina and advanced into Serbia capturing Monastir about the end of November. This campaign was of little assistance to the Rumanians.

Many of the Greeks insisted that war should be declared on Bulgaria for the invasion of Greece. This led to the Venizelist revolution and the establishment of a government under his control in Salonika and in some of the islands of Greece. For the time being there were two governments recognized by the Allied Powers. The Venizelist government reinforced the Allies with volunteer troops.

The Rumanian Campaign.—At the beginning of the World War, Rumania had declared her neutrality, although her king, a former Hohenzollern Prince but not of the reigning family, had desired to declare war on the side of the Central Powers. On his death in the latter part of 1914 it was clear that Rumania would not join the Central Powers but would declare on the side of the Allies as soon as a favorable opportunity occurred.

Her military strength consisted of an army of five corps of two regular divisions and one reserve division each, numbering in all 250,000 rifles with the necessary complement of the other arms. The army was raised by conscription, the term of service being 21 years, of which 2 was in the active army, 7 in the reserve, 10 in the territorial army and 4 in the territorial reserve. The annual contingent of recruits ran from 45,000 to 55,000 men and it was assumed that she had about 500,000 trained men available for service. The last actual war service was in the Russo–Turkish war of 1877–78, although the Army was mobilized and concentrated in the second Balkan war of 1913.

In 1915 Rumania remained neutral awaiting the outcome of the Russian operations in the north and the Allied effort at Gallipoli. The failure of the Gallipoli campaign and the great Russian retreat followed by the invasion of Serbia, prolonged her period of neutrality. After the successful advance of the Russian armies under Brusilov

in June, the Rumanian government determined to act, but it demanded of the Allies besides certain extensions of her territory, that the Allied Army at Salonika should first attack the Bulgarian armies on that front and protect her from attacks on the south; that Brusilov should continue his pressure on the Austrians between the Pripet marshes and Rumania; and that an adequate supply of munitions should be furnished by the Allies.

When Rumania declared war in the latter part of August the situation no doubt looked favorable to the Rumanian military authorities. The Allied force at Salonika was probably stronger than the combined armies of their opponents in Bulgaria; the Austrian armies had met serious defeat on both the Russian and Italian frontiers; the German armies had met with defeat at Verdun and were engaged in the great battle of the Somme in the west and in the east they were occupying a long front. If sufficient pressure were exerted by the Allied force at Salonika and by the Russians, it would be difficult for the Central Powers to meet an invasion of Hungary where it was known that the passes in the mountains were held by weak forces of an inferior character. The principal weakness of the plan seemed to be the reliance on the Allies for an ammunition supply, since this could be furnished only by Russia, which had an inadequate supply for her own armies. The Rumanian authorities did not realize that the Allied Army at Salonika could make no serious effort to help them; that Brusilov's advance had exhausted itself; and that they would receive little assistance from the northern Russian armies because of the internal dissentions in the government.

The situation created by the Rumanian declaration of war was deemed a very serious one by the Central Powers. The great Somme drive was exhausting the German reserves on the west front, the reserves on the east front had been employed in checking the advance of Brusilov, the Austrians were being fiercely attacked along the Isonzo, and the Bulgarians were attacked by Sarrail's army. To meet the situation Hindenburg was made Chief of Staff of the German armies with Ludendorff as his principal assistant. The command of the armies of the Central Powers was centered in the German Emperor as far as possible and the German General Staff was given general direction of operations on all fronts.

To meet the situation on the Austro-Rumanian front, it was decided to create two armies from reserves, the I Austrian Army to reinforce the small force guarding the mountain passes between Hungary and northern Rumania and the IX German Army to operate on its right. The latter army was to be commanded by General

Falkenhayn who had just been relieved as Chief of Staff of the German armies. Mackensen was to organize a third army in Bulgaria from German, Turkish and Bulgarian forces.

The territory of Rumania at this time consisted of the three provinces Moldavia, Wallachia and Dobrudja: the first lies east of Hungary and is separated from it by the Carpathian Mountains; the second is south of Hungary and separated from it by the Transylvania Alps; the third is the territory between the Danube River and the Black Sea. Wallachia is separated from Bulgaria by the Danube River; Dobrudja has a common boundary line with Bulgaria about 100 miles long.

The Rumanian plan of operations provided for an invasion of the Hungarian province of Transylvania, now a part of Rumania, both from Moldavia and Wallachia in conjunction with the Russian Army in Bukowina. Of her four armies, the 4th was to advance from northern Moldavia, the 2d from the re-entrant angle of the frontier and the 1st from western Wallachia. The 3d army was left to protect the southwestern boundary against operation from Bulgaria.

War was declared on August 27 and during the following days the Rumanian columns advanced through all the main passes of the mountains between Bukowina and the Danube River. They met with no serious opposition at the passes as the Austrian Transylvanian detachment was small and the I and IX armies had not yet been formed. The Rumanians advanced slowly and three weeks later the different columns were still widely separated. In the meantime the I Austrian Army was being concentrated at Klausenburg and the IX German Army at Karlsburg.

While the Rumanian plan of operations was progressing satisfactorily in Transylvania, in Dobrudja the Rumanians suffered a serious reverse which compelled them to alter the distribution of their forces. Mackensen had organized an army of German, Bulgarian and Turkish forces and when on September 1, Bulgaria declared war, he immediately crossed the frontier. At Turtukai, on the Danube, the Rumanians had posted an entire division in an intrenched camp with no bridge behind them. While his right wing moved parallel to the coast, Mackensen's left wing moved on Turtukai and captured that place with its entire garrison and about 100 guns. This was a severe blow to the Rumanians and their G. H. Q. immediately detached three divisions from the northern armies and their best army commander to take charge of the defense of the Dobrudja.

Taking advantage of the confusion caused by his first success, Mackensen pressed forward up the Dobrudja thus consolidating his small army as the distance between the Danube and Black Sea diminishes rapidly until it reaches the narrowest part where the railway crosses the Danube to the Rumanian seaport Constanza. Here the distance is only 30 miles. By the middle of the month he had advanced up the Dobrudja about 50 miles and was facing the main Rumanian defensive position about 10 miles from the railway.

This position was held by the 3d Rumanian Army assisted by a Russian corps and a division of Slavs formed of prisoners taken by the Russians in their operations against the Austrians who now volunteered for service in the Russian Army. Here Mackensen's Army was brought to a standstill and when the Rumanian divisions arrived from the north, he was driven back some 10 miles to a position that he had organized in the rear. Here he was obliged to wait the result of the operations in Transylvania which were then just beginning.

When the I and IX armies were concentrated, the situation was as follows: The 1st Rumanian Army had one column on the Danube where it had just captured Orsova; another some 50 miles east which had emerged from the Vulcan Pass and had captured the frontier town of Petroseny; a third column was some 40 miles farther east where it had emerged from the Red Tower Pass and was threatening an advance on Hermanstadt. The 2d Rumanian Army was astride of the railway running northwest from Kronstadt with its left flank at Fogaris about 40 miles east of Red Tower Pass. The 4th Army was moving from the mountains through various valleys to the north of the 2d Army.

The Austro-German plan was to drive the Rumanians back into the Vulcan Pass with superior numbers and then hold the pass with a small force. At the Red Tower Pass, an Alpine corps was to reach the pass in rear of the Rumanians by mountain paths and then the main body of the IX Army was to attack the detachment in front of the pass. Having secured both passes, the left wing of the I Army was to drive back the 4th Rumanian Army while its right wing with the IX Army attacked the 2d Rumanian Army and drove it back over the mountains. At the end of the first phase of the operations the Austro-German armies were in possession of the passes. The IX Army was however unable to make any headway south of the passes as the Russians relieved the 4th Army which was united with the 2d. This first phase in the north was over about the middle of October.

In the meantime, Mackensen's Army had received reinforcements and the Rumanians in his front had been obliged to send assistance to the north. He now resumed the offensive and drove the forces in his front across the railway and captured Constanza. The Rumanians destroyed the bridge over the Danube. Mackensen's advance was again stopped by the arrival of Russian troops and he was again compelled to intrench his position which was some miles east of the railway.

It was originally planned to unite the IX Army with Mackensen's Army in eastern Wallachia and thus cut off the 1st Rumanian Army. The resistance offered by both armies made this impossible and a new plan was formed in which the junction was to be made west of Bucharest. Toward the end of October the IX Army made an attempt to cross the mountains by surprise between the Red Tower and Vulcan passes. The left wing at the Red Tower Pass succeeded in gaining some ground south of the pass but attempts farther west were defeated. A carefully planned attack on the Vulcan Pass on November 10 succeeded and the right wing of the IX Army fought its way down to the plain where Craiova was taken on November 23.

To conform to this plan, Mackensen turned over the defense of his line in Dobrudja to the Bulgarians and withdrew the German and Turkish troops and moved them to Sistova where the Russian Army crossed the Danube in the Russo-Turkish war of 1877–1878. On the same day the northern army entered Craiova, Mackensen taking advantage of a thick fog got a footing on the north bank of the Danube by ferrying his troops. This enabled him to bridge the river and cross his troops. His operations here were assisted by Austrian gunboats on the river.

The Rumanians now endeavored to hold the IX Army on the Aluta River, which flows southward from the Red Tower Pass and empties into the Danube west of Sistova, while they concentrated on Mackensen's Army. To prevent it, the right wing of the IX Army attacked from Craiova while the left wing attacked from the Red Tower Pass and Mackensen from the south. After several days of fierce fighting, the Rumanians were compelled to retreat to the Sereth River abandoning their capital, Bucharest, which was fortified in the manner of Liege and Mackensen took possession December 5.

The Russo–Rumanian forces now evacuated the Dobrudja and concentrated in front of Mackensen and eventually the Bulgarians were drawn to the same front. The campaign closed early in January when the Rumanians had retired behind the Sereth River where

they could not be easily attacked. Here the Rumanians were relieved by the Russians and the Rumanian Army was reorganized and trained by French officers.

While the campaign had temporarily disposed of the Rumanian Army, the victory had not been decisive and a large number of troops of the Central Powers under Mackensen had to be left on this front. The principal gain was the capture of food supplies found in Wallachia which is the most fertile plain of Rumania; these were of great value to the Central Powers.

CHAPTER X.

OPERATIONS IN TURKEY IN 1916.

Armenia.—As previously stated, there were no important military operations on the Armenian front in 1915 after the first months of that year. It was during this period that occurred the disarming, deportation and massacre of the Armenians who were accused of assisting the Russians.

In September, 1915, the Grand Duke Nicholas, former commander in chief of the Russian armies, was assigned to the command of the Russian troops on this front and he immediately began to reorganize the troops for an offensive campaign. It was not however until 1916 that operations actually began on a large scale. In the latter part of 1915 a part of the Turkish troops on this front had been moved to Mesopotamia to form a covering army for the troops besieging Kut where a British relieving army was expected.

Early in 1916, the Russian forces under General Yudenitch advanced across the frontier on a wide front extending from the Black Sea to Lake Van, and a separate detachment under General Baratoff crossed the Persian frontier east of Lake Van to drive the Turks out of northern Persia. The first important success of the Russians was the capture of Ezerum about the middle of February, where the surrounding forts were taken by assault. Shortly thereafter the Russian column on the left captured the towns of Bitlis and Mush near Lake Van. The next important success was the capture of Trebizond, the most important Turkish port on the Black Sea, in April. This was captured by the Russian right column. From Ezerum and Trebizond the Russians advanced on Erzingan, the headquarters of the Turkish Armenian district, which was captured in July.

In the meantime, Baratoff's column had advanced through Persia as far south as Kermanshah where he turned his column in the direction of Bagdad and reached the frontier in May. By this time however the British forces in Kut had surrendered, and the Turks were able to utilize a large part of the force that had been concentrated there. Baratoff did not cross the frontier, but sent a small Cossack force to open communication with the British on the Tigris River below Kut. This force soon returned to the main column.

Had the British been able to relieve Kut and advance northward, the Russians would probably have attempted to make a junction

with them at Mosul, but the failure of the Kut relief expeditions prevented any cooperation.

In August the Turks began a counter-offensive, based on Mosul on the Tigris River to drive the Russians back from Lake Van and threatened the communications of the Russian center at Erzingan. There was severe fighting around Lake Van and the Turks recovered the towns of Mush and Van. From the Tigris River a Turkish column also invaded Persia and compelled the retreat of Baratoff's column from Kermanshah and Hamadan back towards the Russian frontier. In the latter part of 1916, the main effect of the Russian invasion of Armenia was to hold a strong Turkish force on that front.

Mesopotamia.—At the close of 1915, the 6th Indian division under General Townshend was invested in Kut el Amara by several Turkish divisions that had vainly attempted to carry his lines by assault and to force the British to surrender by bombardment. The town being almost surrounded by the Tigris River made it possible to defend it with a small force against a much larger one. The Turks were finally compelled to resort to starvation and in the meantime hold off any relieving force. For the latter purpose they constructed lines of intrenchment and intrenched positions on both sides of the Tigris below Kut.

About the middle of December, General Nixon was relieved of the command of the British troops in Mesopotamia by General Lake, who began to organize a relief expedition. At the time there was only the 12th Indian division available but additional Indian troops were sent from India and Egypt and the 3d and 7th divisions forming the Indian corps in France were en route from Marseilles. The relief expedition was gradually organized at El Gherbi on the Tigris about 50 miles in an air line from Kut, and upon the arrival at that place of the 7th Indian division it was decided to push on to Kut although the relief force was numerically weak for the purpose and was inadequately equipped with transportation, artillery and medical transport. The haste was due to fear that Townshend might not be able to hold out much longer and to confidence in the superiority of the British troops over the Turks.

On the 4th of January the advance began and on the 7th and 8th the relief force met its first check at Sheik Saad, about 25 miles from Kut, where the Turks were strongly intrenched. Here the British force was repulsed with heavy loss in an attempt to carry the Turkish position which was however evacuated by the Turks on the 9th. The relief force advanced up the river successfully some six miles

farther, but was eventually forced to halt on January 21, at the Turkish position at Umm-el-Hanna which was assaulted but could not be taken. This position was unusually strong, since the trenches on both sides of the river were flanked by marshes. At this point the British were compelled to resort to trench warfare while awaiting reinforcements.

During the latter part of January and February, the 3d division arrived and occupied the line on the south bank of the river while the 7th division remained on the north bank. In the meantime the operations were placed under the supervision of the British General Staff.

The next attempt to advance was made early in March. From Sheik Saad, which is almost due east of Kut, the Tigris River makes a bend to the north and the plan was to concentrate a force of about 20,000 men including the 3d division near Sheik Saad and by a night march turn the positions along the river and strike the Turkish outer defense line about 5 miles south of the river. This defense line was about 8 miles from Kut and ran from the Tigris to a point south of Kut. On the night of March 8–9, six brigades moved out and on the 9th assaulted the Turkish lines in the vicinity of the Dujaila redout, but without success. As it was not intended to begin trench warfare on this front, the troops were withdrawn to the old front.

During March, the 13th British division of the New Army under General Maude, which had been at Gallipoli, reached the Sheik Saad and in April the third attempt was made to reach Kut. In these operations the 13th and 7th divisions were to operate on the north bank and the 3d with the other troops on the south bank. By means of siege work, the British had secured a position close to the Turkish trenches at Umm-el-Hanna. On the morning of April 5th the 13th division carried the strong position of Umm-el-Hanna and a second position a mile in rear; the 3d division advanced the same distance on the west bank. The Turks had however only retreated to a still stronger line at Sannaiyat a mile in rear, where they were strongly reinforced. Attempts to carry this position by the 7th and 13th divisions between the 8th and 18th failed. The struggle was kept up until the garrison of Kut surrendered due to starvation, on April 29th; some advance was made on the west bank but the main Turkish line attacked in March still remained intact. Toward the end of the siege some supplies were landed in Kut by airplanes but not enough to materially prolong the defense. An attempt made by a gunboat to run the gauntlet of the Turkish works also failed.

When finally compelled to surrender, the siege of Kut had lasted 143 days; the force surrendered consisted of about 10,000 men of whom 3,000 were British regulars. About 1,200 men were killed or died of wounds or deserted during the siege.

After the fall of Kut there was no further attempt to advance but the positions secured were held by the British troops. To meet Baratoff's Russian column, in May the Turks withdrew one of their divisions and at the same time evacuated their advance line west of the Tigris and fell back on lines nearer the town. The British then advanced to the old Turkish line which they had attacked in March.

The failure of the relief expeditions was due to various causes one of the principal being the uncertainty of the length of time the British garrison could hold out. Had it been known that Townshend could hold out until the 13th division arrived, a larger force could have been concentrated for the opening operations which would have had a material effect on the operations. Over confidence, bad weather, inadequate transportation and inadequate equipment for trench warfare also contributed here as at Gallipoli to the failure.

As the heat of the summer in Mesopotamia made operations on a large scale impossible, the following months were spent in organizing for the advance on Bagdad which was to begin at the end of the year. The river transport system was thoroughly organized and hugely expanded. Standard gauge and light railways were constructed at points to supplement the river transportation. The troops were more thoroughly organized, equipped and trained. In August General Lake was relieved of the command of the Mesopotamia district by General Maude who had been in command of the 13th division.

The second advance on Bagdad was not begun until the last of December and properly belongs to the operations of 1917.

Egyptian Front.—A large British force was assembled in Egypt in the winter of 1915–1916 from Gallipoli, as it was feared that after the withdrawal from Gallipoli the Turks might return to their project of invading Egypt. The Russian invasion however deflected most of the available Turkish troops to that front. In the spring therefore most of the British troops brought back from Gallipoli were sent to other fronts.

The operations of the British troops on the Egyptian front were mainly defensive and consisted in holding or destroying all the desert wells in a belt extending about 30 miles east of the canal. In the north, however, along the coast road, preparations were made for an advance. As a preliminary step it was decided to occupy the

Katia oasis, about 30 miles from the canal and connect it with the railway system of Egypt by a standard gauge railway. To supply any large body of troops operating along this line it was necessary also to construct a pipe line parallel to the railway. In order to guard the railway construction a number of small posts mostly held by mounted troops were established in advance and on the flank.

The first attempt to interfere with the construction of the railway was made in April, when a number of these posts were attacked by a small Turkish column which advanced along the coast road. The British suffered some casualties, but the work was not seriously interfered with.

The second attempt was a more serious one and was made in August when the railway had been constructed to a point about 25 miles east of the canal. The Turkish column that advanced along the shore road was estimated at 15,000 to 18,000 men. The British railhead was covered by a strong line held by a Territorial division with one flank resting on the sea, where it was protected by monitors, and the other protected by the mounted troops. The Turkish movement had been observed about two weeks before the attack was made and the British were prepared for it. The result was that the Turks were repulsed with heavy loss and in the pursuit that followed the British captured some 4,000 prisoners, mountain artillery, machine guns and stores.

After this second attack, the Turks made no further attempts to interfere with the construction of the railway, which was now pushed forward at the rate of 20 miles per month and at the close of the year was within 15 miles of El Arish, the most advanced of the Turkish strongly held positions. The construction of this railway and its water supply system was the most important operation on the Egyptian front during the year and indicated the intention of the British commander to transfer the theater of operations from the Suez Canal front to the Turkish province of Palestine. The water was drawn from the Nile, brought across country, carried under the Suez Canal by siphon and filtered giving a supply of one half million gallons daily. Reservoirs and pumping plants were constructed at intervals of 24 miles and the water forced forward through steel pipes. Tank cars were employed along sections under construction and on side lines.

An important event on this frontier was the revolt of the Arabs against Turkish rule in Hedjaz, a strip of territory on the east side of the Red Sea extending from the vicinity of Mecca northward. Through it ran the Pilgrim or Hedjaz railway from Medina to

Damascus and Aleppo passing to the east of the Dead Sea and the Jordan River in Palestine. After the Kingdom of Hedjaz was proclaimed and recognized by Great Britain and France, Prince or Emir Faisal organized the forces of the new kingdom and made himself master of all the territory of the new kingdom south of Medina by capturing the small Turkish garrisons. At the close of the year, he was prepared to operate against the Turkish posts along the Hedjaz railway on the flank of the British column. The aim of the British in inciting the insurrection was to detach the Arabs from the Turkish Empire and replace the Sultan of Turkey by the Sherif of Mecca as the protector of the Mohammedans.

CHAPTER XI.

GENERAL PLANS AND OPERATIONS ON THE WEST FRONT IN 1917.

Although they had led to no decisive result, the operations of the Allied Powers were far more successful in 1916 than in the preceding year and gave promise of a more complete success in 1917 providing there was vigorous action upon the part of all the Allies. On the west front the German attack on Verdun had been repulsed and much of the ground gained in the first rush had been recovered. In the Somme drive the Allies had shown that the most elaborately constructed defensive lines could be penetrated by determined troops well supported by artillery and that in their tanks the British had a military engine which gave promise of being of great assistance to attacking infantry. At the close of 1916 on the west front the morale had apparently passed from the German Army to the Allied armies who were now confident of ultimate victory. In Italy while the Austrian offensive had come to naught the Italians had crossed the Isonzo at Gorizia and had advanced some miles on the Carso plateau. At Salonika the Allied force had begun its advance into Serbia and had recaptured Monastir from the Bulgarians. The menace of the Greek Army in its rear was removed by the demand made by the Allied Powers that the Greek Army be demobilized; the order was issued in June. This was followed in October by the Venizelos revolution and the establishment of the revolutionary government at Salonica where an army in sympathy with the Allies was organized. Although the government at Athens still remained neutral it was powerless to interfere with the plans of the Allies. In Turkey the British forces operating from Egypt had almost reached the boundary of Palestine with their railway and were ready to begin an invasion of Turkish territory. In Mesopotamia where the British operations had been paralyzed by lack of transportation the transportation problem had been solved and the British force was thoroughly equipped to renew its advance on Bagdad. The Russian armies under the Grand Duke Nicholas were well within Armenia and although they might not be able to advance much farther on account of the difficulties of transportation they could at least neutralize a large part of the Turkish Army. In Rumania the army had been greatly strengthened by Russian troops and while it might not be able to renew the offensive it could like the

Russian Army in Armenia neutralize a large force of the armies of the Central Powers. The situation on the Russian front was the least satisfactory. The Government was becoming more and more unpopular and was more interested in preserving its power than in carrying on the war. Should the government fall its effect on the army as in all revolutions was uncertain. What was desired by the British and French was a vigorous prosecution of the war on all fronts simultaneously as soon as the weather would permit.

In June, 1916, the British War Minister, Lord Kitchener, was lost at sea while en route to Russia; he was succeeded by Mr. Lloyd George. Late in the year a change in the ministry made Lloyd George Prime Minister and he organized a War Cabinet of five members with himself as chairman to conduct the war. In a sense, Mr. Lloyd George became the dictator of the British government. The exemptions under the first conscription act were found unsatisfactory and modifications were introduced giving a greater number of men available at the front. In France there was also a change in the ministry in which General Layautey became Minister of War and a War Cabinet was appointed similar to that in Great Britain. Toward the close of 1916 General Joffre was retired from active command and became Technical Adviser of the War Cabinet with the rank of Marshal of France. Upon his recommendation General Nivelle who had been in command at Verdun during the summer and autumn and had recovered much of the ground taken by the Germans was placed in command of the armies of France.

At the close of 1916 the situation from the point of view of the Central Powers was anything but reassuring. The lines of the German and Austrian armies had been so greatly extended that it was necessary to bring Turkish troops to Galicia and Rumania although they were greatly needed in Turkey. The heavy losses at Verdun and in the Somme attack as well as the effect of the stringent blockade were having a depressing effect on the German people. The people of all the Central Powers were very anxious for peace. The long fronts held by the armies of the Central Powers reduced them to the defensive and their reserves were at a low ebb. On account of the U-boat warfare the relations between Germany and the United States were becoming more and more strained. In both Germany and Austria there were changes of ministry showing dissatisfaction as in Great Britain and France; in Austria there was a change of rulers due to the death of Emperor Francis Joseph. It was the unsatisfactory military and food situation that led the German G. H. Q. to consent to the unrestricted U-boat warfare in Feb-

ruary, 1917, that led to war with the United States in April. The German Navy hoped to force Great Britain to make peace in six months.

Attack and Defense.—During 1917 the British and French relied mainly on their superiority in all types of artillery for preparing the way for an infantry attack although both employed tanks to assist the infantry. Guns varied in calibre from the very heavy artillery mounted on railway carriages and designed to reach the areas well in rear of the enemy's positions to the small infantry guns designed to attack machine gun nests. Both high angle and flat trajectory pieces were employed. For short range trench mortars portable and fixed were used. Mapping from aereal photographs was relied on for the preliminary study of the enemy's dispositions and airplanes assisted the artillery in the actual attack in locating targets and in bombing the rear areas; the maps were often supplemented by relief models. After a careful study of the map lines were drawn on showing the successive fronts that were to be reached at definite times after the attack began so that no unit should get out of hand and be subjected to flank attacks by the enemy. Each unit commander studied the zone assigned him and assigned its separate objectives to his subordinates down to the platoon commander. In a similar manner the work of the artillery was assigned to the units of the various branches so that each unit might be prepared for its special work. Liaison between unit commanders of the same arm and of the different arms was provided by all the various means that had been devised. A great attack was usually begun by a prolonged and intense artillery fire of destruction aimed at batteries, intrenchments and concentration points in order to lighten the task of the infantry. The attacking troops were preceded by a rolling barrage of the short and medium range artillery while the long range guns sought to prevent the assembly of reserves, the movement of troops and ammunition in the rear area as well as to keep down the artillery fire. The disadvantage of the prolonged bombardment was that it informed the enemy of the probable front of attack; to avoid this fire was opened simultaneously on other fronts but as a rule the enemy was able to discover which was the real attack. Another disadvantage of a prolonged artillery preparation was that at its close the infantry attack had to be launched regardless of weather; not infrequently bad weather set in just at this time.

In the defense the Germans had discovered that trench lines register very accurately on an aereal photograph and are not easily camouflaged. This led them to rely more on machine gun defense

combined with entanglements and artillery fire and employ the infantry for counter-attack. The zones of defense became deeper and greater use was made of natural cover to conceal their dispositions. Extensive use was made of concrete machine gun casemates or "pill boxes" which would resist field artillery and were difficult to hit by heavier artillery farther in rear. The German G. H. Q. failed to appreciate the possibilities of the tank in attacking machine gun nests and in running over wire entanglements and trenches and failed to provide any special means of defense save armor-piercing bullets and small rapid fire guns. They did not realize the extent to which tanks would be developed and employed. In 1917 the Germans were still superior in the use of gas having brought into use the mustard gas shell which was not used by the Allies until the following year.

Allied Plans for 1917.—In November at the close of the operations on the west front in 1916 there was a conference of the commanders of the Allied armies or their representatives at headquarters of General Joffre. It was there agreed that to secure decisive results in 1917 the offensive must be assumed simultaneously on all fronts, British, French, Italian, Russian, Rumanian and Salonikan and the attacks must embrace wide sectors. In order to prevent the Central Powers from taking the initiative as in 1916 it was decided that all the armies should be prepared to take the offensive by the middle of February, 1917, and unless circumstances prevented it the offensive should begin promptly at that time.

For the west front, Generals Joffre and Haig planned a renewal of the battle of the Somme on an enlarged scale in which the front of attack was to extend from Lens in the north to the Oise River in the south and involve the 1st, 3d, 5th and 4th British armies and the northern group of the French armies. A secondary attack was to be made by the central group of French armies north of Reims. In December when General Nivelle had replaced Marshal Joffre in command of the armies this plan was revised by Nivelle and his own substituted for it. Influenced by his successes at Verdun General Nivelle was not satisfied with a partial success such as would result from a renewal of the battle of the Somme even on a wider front. He believed that the Allies had reached the point where the operations in the west should aim at nothing less than the destruction of the German armies and the reconquest of the invaded territories in Belgium and France. To effect this he contemplated in addition to an attack between Lens and the Oise River an attack from the south between Soissons and Reims in the direction of

Hirson which should turn the German lines both to the east and the west. General Haig was directed by the British government to cooperate with Nivelle and at the latter's request during January and February took over the French lines as far south as Roye thus releasing the 6th and 10th French armies which were to attack on the new front. Before the offensive could be resumed by the Allies the Germans retreated from their great salient in the west which caused a further delay.

Retreat of the German Armies on the West Front.—As early as September, 1916, as a result of the progress made by the Allies in the great Somme drive, German G. H. Q. decided that it might be necessary to shorten the lines in the west and evacuate the great salient west of the line Arras–St. Quentin–Missy sur Aisne. Work on a strong defensive position on the new line was therefore begun; it was called by the Germans the Siegfried line but was usually known to the Allies as the Hindenburg line. The positions to be evacuated were held by the army group, VI, II and I armies, under the Crown Prince of Bavaria who was directed to make plans not only to remove the supplies and stores but also to destroy the highroads, villages, towns and wells to prevent the Allies from establishing themselves in force in the near future in front of the new line.

The withdrawal of the stores began on February 9 and the general retreat with its program of destruction began on March 16. The withdrawal to the new line having been carefully prepared in advance was effected without loss. The retirement was greatest opposite Roye where the new line was about twenty-five miles in rear of the old one.

As a result of the retreat of the German armies the task assigned to General Haig had to be modified. The 5th and 4th British armies were now on the front Bapaume–St. Quentin far in advance of their original line and it would take months to improve the communications in their rear and bring up supplies and munitions for an attack on the Hindenburg line. All that could be expected of them was to keep up the pressure on the Germans in their front to prevent them from withdrawing troops. The British attack had to be made by the 3d Army which was astride of the Scarpe River at Arras and the 1st Army whose right was south of Lens.

In one respect the German retreat was an advantage to General Nivelle as it shortened the French line north of the Oise River and he was enabled to withdraw more troops for his main attack. Between St. Quentin and the Oise he left the 3d French Army under

General Humbert whose mission was similar to that of the 4th British Army on his left. This was the only remaining army of the northern group of French armies which was under the command of General d'Esperey who had relieved General Foch in December, 1916.

For his principal attack from the south General Nivelle had organized a new group of armies called the reserve group the command of which he had offered General Petain and when he declined, it was assigned to General Micheler. It consisted of the 6th French Army, General Mangin; the 5th French Army, General Mazey, and the 10th French Army, General Lachene. General Petain who still commanded the central group east of Reims was directed to cooperate in the attack with the 4th Army between Reims and the Suippe River.

What General Nivelle hoped to effect was a break-through by the British in the direction of Douai and the turning of the German lines to the north and south; a break-through by the French between Soissons and Reims into the Laon region and the turning of the German lines both to the west and east. This would compel the Germans to retreat and it was hoped that their armies could be destroyed by rapid advance all along the line from the Channel to the Argonne.

According to German accounts the German G. H. Q. became aware of Nivelle's plan some time in February through the capture of an order and it probably hastened the withdrawal from the salient. As soon as the armies were behind the Hindenburg line the I German Army was detached and sent to the Aisne front and inserted between the VII and III armies which were holding that front between the Oise River and the Argonne. This group was under the German Crown Prince. Steps were also taken to strengthen this front by additional lines and works.

The promotion of General Nivelle over the heads of many senior officers of greater experience created dissatisfaction in the French Army and in addition there were many general officers who did not share his optimistic views as to the result of his plan of attack. This created some uneasiness among members of the French cabinet and especially in the mind of the new Minister of War who was appointed about the middle of March. In view of the changes that had occurred since the plan was first proposed, the revolution in Russia, the breaking off of diplomatic relations between the United States and Germany, and the shortening of the German line in the west, the Minister had some doubts as to the advisability of an offensive on a grand scale. A series of discussions followed from

which it appeared that General Haig was in favor of a vigorous offensive with all possible strength and the French group commanders while not opposed to the attack were of the opinion that a break-through was improbable beyond the second German line and that an attack with a limited objective promised greater success. The final conference on April 6 in which the President, the Minister of War, General Nivelle and the four group commanders took part did not result in any material change in General Nivelle's plan for which he issued the directive on April 4 to General Haig and his group commanders; on the 5th he notified General Haig that the British infantry was to advance on April 9. The reserve group of French armies was to advance three days later. Unfortunately for General Nivelle, the weather which had been fair during the first days of April changed on the 9th and there were intermittent storms of rain and snow throughout the period of the offensive. The French attack was postponed from the 12th to the 16th but without any improvement in the weather and the troops suffered severely in the concentration areas while waiting for the advance.

British Attack Near Arras.—For several miles on either side of the Scarpe River, which flows eastward through Arras, the German front line trenches ran parallel to and from one to two miles from the roads that ran northward from Arras to Bethune and southward from Arras to Bapaume. In general the ground rose gradually from the front line trenches to a ridge which at the northern extremity of the battlefield, Vimy Ridge, was a short distance from the front line, and at the southern extremity some four miles from it. This ridge commanded a view of the country both west and east. The possession of this ridge was the objective of the British attack although the British commander was prepared to follow up his attack should the conditions resulting from the attack warrant it. The northern part of the field was that in which the French had made their attacks in May and September, 1915.

The main attack was made by the 3d British Army, General Allenby, who had at his disposal for the opening attack four army corps, 16 divisions, and a cavalry corps. On his left the Canadian corps of the 1st Army was to attack Vimy Ridge. Eight tanks were assigned to the Canadian corps and forty to the 3d Army. Advantage was taken of a large system of quarries and cellars in Arras and its suburbs to assemble a large force close to the front. In case a break-through was accomplished the reserve corps and cavalry would advance through the gap and the 1st and 5th armies on the flanks would assist in the exploitation.

The German line was held by the VI Army; it had been occupied practically since the autumn of 1915 and had been strengthened by intrenchments, redouts, concrete and other machine gun emplacements, wide fields of wire entanglements and ample tunnel and other shelters. In general it consisted of three lines of defense each well wired and reinforced by elaborately constructed strong points. Notwithstanding the strength of their position, in view of the success of the British in 1916 in their attack farther south, the Germans were already constructing a new line some miles in rear of the ridge to which they could retire if necessary.

The following extracts from the report of General Haig give some of the salient features of the attack:

"The great strength of these defenses demanded very thorough artillery preparation and this in turn could only be carried out effectively with the aid of the air service.

"Our activity in the air, therefore, increased with the growing severity of the bombardment. A period of very heavy air fighting ensued, culminating in the days immediately preceding the attack, in a struggle of the utmost intensity for local supremacy in the air. Losses on both sides were heavy but the offensive tactics most gallantly persisted in by our fighting aeroplanes secured our artillery machines from serious interference and enabled our guns to carry out their work effectively. At the same time bombarding machines caused great damage and loss to the enemy by a constant succession of successful raids directed against dumps, railways, aerodomes and billets.

"Three weeks prior to the attack the systematic cutting of the enemy's wire was commenced while our heavy artillery searched the enemy's back areas and communications. Night firing, wire cutting and bombardment of hostile trenches, strong points and billets, continued steadily and with increasing intensity on the whole battle front till the days immediately preceding the attack, when a general bombardment was opened.

"During this latter period extensive gas discharges were carried out and many successful raids were undertaken by day and night along the whole front to be attacked.

"Organized bombardments took place also on other parts of our front, particularly in the Ypres sector."

The wire cutting, etc., began in the third week in March; the general bombardment opened on the 4th of April and lasted until the 8th on which day preparations were made to support the assault scheduled at 5:30 a. m. on the 9th.

"The attack on the front was planned to be carried out by a succession of comparatively short advances, the separate stages of which were arranged to correspond approximately with the enemy's successive systems of defense. As each stage was reached a short pause was to take place to enable the troops detailed for the attack on the next objective to form up for assault.

"Tanks, which on many occasions since their first use in September of last year had done excellent service, were attached to each corps for the assault and again did admirable work in co-operation with our infantry. Their assistance was particularly valuable in the capture of hostile strong points."

The general attack was launched at 5:30 a. m. on April 9th after an intense preliminary bombardment of about an hour. The weather was favorable for the opening attack as there was rain followed by snow which was driven into the faces of the enemy by a west wind. It was however unfavorable for artillery observation and air operations and the ground became hourly more difficult for the movement of infantry, artillery and tanks. The infantry advanced covered by an effective barrage and within forty minutes had carried the German first line of trenches.

At 7:30 the advance was renewed against the second objectives where greater opposition was met but by noon these were carried on a front of about seven miles.

Shortly after noon the advance was renewed for the third objectives and met with still greater opposition as the wire had not been thoroughly destroyed along part of the front. This required further action by the artillery which was with difficulty moved up for this purpose. It was this wire and the assistance of some strong points in the third line that prevented the use of the cavalry corps which had moved up to the vicinity of Arras.

"At the close of the day our troops were established deeply in the enemy's position on the whole front of the attack. We had gained a firm footing in the enemy's third line on both banks of the Scarpe and had made an important breach in the enemy's last fully completed line of defense. North of the Scarpe little remained to be done to complete the capture of our objectives. South of the river we still required to gain the remainder of the German third line."

After the first day the operations of the British troops were much hampered by the bad weather which continued stormy for many days with heavy falls of snow and squalls of wind and rain. The first period of the attack ended about April 13th when the divisions most heavily engaged were withdrawn from the line and the cavalry corps was sent to the rear. A break-through had not been effected but north of the Scarpe the British were in possession of the much coveted ridge and were advancing down its slopes. South of the Scarpe River the attack had not been so successful as the Germans still had possession of most of the high ground. During this first attack the British captured 12,000 prisoners and 200 guns.

Had the weather been more favorable for the movement of troops and artillery the success of the British would undoubtedly have been far greater. Ludendorff says:

April 10, and the following days were critical. The consequences of a break-through of twelve to fifteen kilometers wide and six or more kilometers deep are not easy to meet. In view of the heavy losses in men, guns and ammunition resulting from such a break-through, colossal efforts are needed to make good the damage. It was the business of General Headquarters to provide reserves on a large scale. But it was absolutely impossible with the troops at our disposal and in view of the military situation to have a second division immediately behind every division that might fall out. A day like April 9 threw all calculations to the wind. Many days had to pass before a new line could really be formed and consolidated. The end of the crisis, even if troops were available, depended very largely, as it generally does in such cases, on whether the enemy after his first victory, would attack again, and by further success aggravate the difficulty of forming a new line. Our position having been weakened, such victories were to be won only too easily."

He also says:

"The battle of Arras was at its height in the second half of April and was swallowing up a liberal supply of reserves and material, when on April 16, the French also opened their formidable offensives on the Aisne and in Champagne."

During the French attacks between Soissons and Reims, April 16 to May 4, the British kept up their pressure to prevent the withdrawal of German troops and made several successful attacks in the vicinity of Lens and south of the Scarpe River where their advance had been checked in the first attack. At the end of this period the lines were consolidated. The British had succeeded in advancing their line about 4 miles east of Arras and had possession of most of the high ground south as far as the Sensee River near Croisilles.

During the entire period covered by these operations the 5th and 4th armies were engaged in attacking advance positions of the Hindenburg line to prevent the withdrawal of troops. During the month's fighting between Lens and St. Quentin the British captured some 20,000 prisoners, 257 guns and a large number of trench mortars and machine guns as well as valuable war material. The British casualties were also heavy and numbered over 175,000 men.

French Attack Along the Aisne.—In the Aisne area between the Oise and the Argonne General Nivelle had concentrated a force of 1,200,000 men and 5,000 guns. After the retreat of the Germans to the Hindenburg line he had prolonged the front of attack originally to be made between Soissons and to the Suippe River east of Reims.

The German front ran due south from the Ailette River to the Aisne at the junction of the Vesle and thence along the south bank for a few miles where the Germans had a bridgehead captured in the winter of 1914–1915; thence the line crossed the river to the Chemin des Dames ridge between the Ailette and Aisne rivers and along that ridge to Craonne. From Craonne the line ran southeast to some heights commanding Reims and thence over the Moronvilliers ridge between the Suippe and Vesle rivers to the Suippe. The attack was to be delivered over this entire front by the reserve group of armies from the Ailette to Reims and by the 4th Army of the central group east of Reims.

The 6th French Army had one corps facing the German front between the Ailette and Aisne and four corps facing the Chemin des Dames ridge east of Soissons; it was to attack on both fronts and if possible cut off the retreat of the German forces in the salient. The 5th Army with six corps was to attack the German front between Craonne and Reims. The 5th and 6th armies were expected to carry the four German lines and reach the heights to the north of the Ailette the first day. The 10th Army and the cavalry were held in reserve but were to be pushed forward the second day and reach Laon. The attack was to be prepared by a prolonged artillery bombardment which as in the German attack at Verdun was to cover a deep area.

Unfortunately for General Nivelle's plan the artillery had hardly opened fire when on April 9th a storm of snow and rain began which lasted about two weeks and interfered with airplane and ground observation. The infantry assault was postponed from the 12th to the 16th in the hope of better weather but was finally launched on the morning of the 16th under very unfavorable weather conditions. As a result, although the German lines were penetrated at various points along the front, only the first of the German lines could be captured and held on the Chemin des Dames ridge and to the east. At the close of the first day it was evident that there would be no break-through but the struggle was continued until the night of the 21st. During these days the 6th Army succeeded in capturing the German salient and the Germans retired from it to the ridge north of the Aisne with heavy loss. At the close of the battle, the French had advanced their lines at various points but as a whole the attack of the 6th and 5th armies had not been a success. East of Reims, the 4th French Army, four corps, under General Anthoine, had been more successful and in its attack had by April 30th captured the Moronvilliers ridge which gave the French an outlook to the north

and deprived the Germans of their excellent observing stations. After the 21st of April there was a lull in the battle west of Reims until May 4, when the 6th, 10th and 5th armies attacked and the 10th captured the town of Craonne. This was an attack with limited objectives.

As General Nivelle had not succeeded in winning the confidence of his government by this attack, on April 29 General Petain was made War Department Chief of Staff with supervising control over all operations; at the request of General Nivelle, General Maistre relieved General Mangin of the command of the 6th Army.

The failure of the great attack by General Nivelle had a demoralizing effect on the French Army; although it had captured some 20,000 prisoners and a large number of guns its own casualties were about 120,000 and its general advance west of Reims had been slight. In this battle the heavy French tanks had been employed for the first time but without much success. Of some 132 tanks, nearly half advanced well beyond the infantry and were destroyed by German artillery while the others became stalled in the field. The ease with which this tank attack was defeated deceived the Germans as to the value of these new engines.

On the 15th of May, General Petain succeeded General Nivelle in command of the French armies and General Foch, who had been without any important duty since the preceding December, became Chief of Staff at the War Department.

British Operations in Flanders or Third Battle of Ypres.—General Haig had planned to make Flanders his main field of operation in 1917 for the purpose of securing if possible the Belgian coast line and the German submarine base at Zeebrugge. He was however delayed in undertaking operations here by his instructions to cooperate with the French in their attack on the Aisne. When in May it became evident that the French attack had closed, without wholly ceasing his attacks farther south he made preparations to carry out his original plan. The French again took over most of the front from Cambrai to St. Quentin.

The line occupied by the opposing troops between the English Channel and the Lys River had not changed materially since the second battle of Ypres when the British lines had been drawn back to a distance of two miles from the ruins of the town due to the first gas attack of the Germans in April, 1915. North of the town the Allies were behind the Ypres canal and the Yser River as far as the coast where they had a narrow bridgehead on the east side of the river. South of Ypres the Germans occupied a great salient on

the ridge occupied by the towns of Wytschaete and Messines. The southern end if their line rested on the Lys River between Armentieres and Warneton.

Messines Ridge.—While making his preparations and concentrating his troops for the main attack General Haig decided to recapture the German Wytschaete–Messines ridge with the three corps of the 2d Army which was then holding the line between the Lys River and Ypres. This ridge was held by troops of the IV German Army which occupied the line between the Lys River and the Channel. This ridge which commanded the British line had been held since October, 1914, when it was taken from the dismounted British cavalry and had been strongly fortified.

One of the most interesting features of the attack on the Messines–Wytschaete Ridge was the extent to which military mines were employed in the attack. The mining operations were begun in January, 1916, and most of the work was finished that year. The mines were of great depth and were executed by special mining companies organized from practical miners in Great Britain, Canada and Australia. In the course of these operations 8,000 yards of galleries were constructed leading to twenty-four great mine chambers. Nineteen of these chambers were under the front to be attacked and in condition when the assault was made. Over a million pounds of ammonel were used in the charging of the mines.

Like all similar operations the attack was preceded by the usual artillery preparation which began on May 27 and continued until the morning of the assault, June 7. On that morning the mines were exploded at 3:10 and soon thereafter the three corps assigned to carry the position moved out. The mines had been very effective in destroying the enemy's first line, one of them forming a crater 140 yards wide and 70 feet deep. Due to the demoralization of the German troops caused by the mines and the destruction of the works caused by the artillery preparation, the position was taken and consolidated before the Germans could launch a counter-attack. This when made was repulsed with heavy loss to the attacking troops.

The attack was a complete success and resulted not only in the capture of the position but also in the capture of over 7,000 prisoners, 67 guns and a large number of trench mortars and machine guns. From the ridge the Germans fell back three miles to a line selected in advance. Due to the demoralization of the Germans by the mine explosions and the fact that the attack was coincident with the relief of the German division then holding the front, the British losses were relatively small.

Battle of Passchendale Ridge.—In the meantime, the 1st and 3d British armies extended their fronts to occupy the line as far as the Scheldt canal south of Cambrai where the 3d Army connected with the French. The 5th and 4th armies which had been on the right of the 3d Army were brought to the north where the 5th, General Gough, was to make the main attack on the Ypres front and the 4th, General Rawlinson, was to be employed near the Channel. The 1st French Army, General Anthoine, inserted between the 5th British and the Belgian Army was to attack with the 5th Army. As it turned out the more ambitious aim of securing the Belgian coast had to be abandoned and the ultimate objective of the campaign was the low ridge east of Ypres which extends from the Messines ridge via Gheluvelt, Zonnebeke, Passchendale to Stadenburg. The village of Passchendale is between five and six miles east of the line then occupied by the British. The watershed is less than 60 feet above sea level and much of the ground between the objective and the British line is less than 20 feet above sea level. It is an exceedingly difficult country for operations in a season of heavy rains such as that covered by the period of the attack. Infantry and artillery movements were difficult due to the blocking of the roads and tanks were almost useless.

On the front of attack the Germans had three general lines of defense: one close to the Allied line, another a mile or so in rear, and a third a mile and a half still farther to the rear behind a sluggish stream, the Steenbeck, which was generally parallel to the lines. On account of the nature of the country the Germans relied for defense mainly on strong points organized with wire and machine guns many of them in concrete casemates. These were for passive defense; for active defense they relied on counter-attacks by shock troops. Shell holes were also organized for defense.

The preparations for the attack were completed during the month of July and the date for the launching of the infantry attack was finally set for July 31. As in the Arras attack the assault was preceded by a battle in the air to gain control and a prolonged artillery bombardment to destroy the enemy's batteries and his works. During this bombardment the Germans withdrew from their front line along the Ypres canal where they faced the French which enabled the French to cross the canal and construct bridges which facilitated their first attack. The hour selected for the assault was 3:50 a. m. when it was preceded by a discharge of drums filled with oil and ignited by thermite; the troops were protected by the usual rolling barrage.

The attack of the 5th British Army was made by nine divisions in the front line and extended from the Ypres–Commines Canal on the south to the Ypres–Thourout railway on the north. Two French divisions attacked on the left and the 2d British Army on its right as far as the Lys River. The attack of the 5th British and 1st French armies was to be the main attack as it was desired to advance mainly in the direction of Roulers and Thourout.

The opening attack was successful as the French right and British left reached the Steenbeck stream that day and in general the first and second German positions were carried over the entire front of the two armies. The 2d British Army also reached its objectives which involved only a slight advance. At this stage the weather prevented General Haig from following up his success and gave the Germans time to recover.

"The weather had been threatening throughout the day and had rendered the work of our aeroplanes very difficult from the commencement of the battle. During the afternoon while fighting was in progress, rain began, and fell steadily all night. Thereafter, for four days, the rain continued without cessation, and for several days afterward the weather remained stormy and unsettled. The low-lying, clayey soil, torn by shells and sodden by rain, turned to a succession of vast muddy pools. The valleys of the choked overflowing streams were speedily transformed into long stretches of bog, impassable except by a few well defined tracks, which became marks for the enemy's artillery. To leave these tracks was to risk death by drowning, and in the course of the subsequent fighting on several occasions both men and pack animals were lost in this way. In these conditions operations of any magnitude became impossible, and the resumption of our offensive was necessarily postponed until a period of fine weather should allow the ground to dry.

"As had been the case in our Arras battle, this unavoidable delay in the development of our offensive was of the greatest service to the enemy. Valuable time was lost, the troops opposed to us were able to recover from the disorganization produced by our first attack, and the enemy was given the opportunity to bring up reinforcements."—Sir Douglas Haig's Despatches.

This condition of affairs was very disappointing to General Haig but there was nothing to do but to wait until the ground was again in condition for military operations. As the ground was flat the run-off in the streams was slow and it was over a month and a half before the attack could be continued. In the meantime the final position gained was consolidated and such operations as were possible were made for continuing the attack at the earliest possible moment. Some minor operations were undertaken in the latter part of August in which parts of the Allied line were advanced.

Verdun.—In the latter part of August, while the attention of the Germans was fixed on their extreme right in Belgium, the French made a very successful attack at Verdun. Both the French government and the Army had been greatly depressed by the failure of General Nivelle's great attack which was to break the German front. It was the task of General Petain to restore the confidence of both which he did by two very successful attacks made in the last half of 1917; the first of these was at Verdun.

North of Verdun the 2d French Army, General Guillaumat, faced the V German Army. Although General Nivelle while in command at Verdun had regained a part of the territory north of Verdun on the east side of the Meuse, the Germans were still in advance of their original line. West of the Meuse they still occupied the line on 304-Meter Hill and Mort Homme to which they had advanced from Melancourt and Forges creek. It was the aim of General Petain to force them back to their original position by a series of advances to limited objectives and prevent the possibility of a renewal of the attacks on this front.

The attack was begun by a powerful three-day bombardment and was followed at dawn on August 20 by the advance of the infantry on successive objectives. In seven consecutive days the enemy was driven back from line to line until he was practically back in his original position. The attack was not contemplated to break through the German line but was made mainly to show that the French had not lost their fighting spirit. The operations on this front ceased early in September.

Of the attacks in Flanders and Verdun to the end of August Ludendorff says:

"The costly battles in Flanders and at Verdun imposed a heavy strain on the western troops. In spite of all the concrete protection they seemed more or less powerless under the enormous weight of the enemy's artillery. At some points they no longer displayed that firmness which I, in common with the local commander, had hoped for.

"The enemy contrived to adapt himself to our methods of employing counter-attack divisions. There were no more attacks with unlimited objectives such as General Nivelle made in the Aisne–Champagne battle. He was ready for our counter-attacks and prepared for them by exercising restraint in the exploitation of success."

Renewal of Battle of Passchendale Ridge.—General Haig says:

"At the beginning of September the weather gradually improved, and artillery and other preparations for my next attack proceeded steadily. Both the extent of the preparations required, however,

and the need to give the ground time to recover from the heavy rains of August rendered a considerable interval unavoidable before a new advance could be undertaken. The 20th of September was therefore chosen for the date of our attack. . . . . ."

This attack was made on the same front as before but the left wing of the 2d British Army whose commander, General Plumer, was now in command of the entire British forces engaged, took over the difficult sector between the Ypres–Roulers railway and the Ypres–Commines canal. Notwithstanding unfavorable weather the Allies' line was advanced from one to two thousand yards and was held during succeeding days against furious counter-attacks. On October 4 another general attack was made and the greater part of the coveted ridge was taken as far north as the Ypres–Roulers railway. By local attacks the British advanced to Passchendale village which was taken by the Canadians November 6; this closed the operations in Flanders for the year.

Of the attacks of September 30, October 4 and later operations Ludendorff says:

"After a period of profound quiet in the West, which led to hope that the battle of Flanders was over, another terrific assault was made on our lines on September 20. The main force was directed against the Passchendale–Gheluvelt line. Obviously the British were trying to gain the high ground between Ypres and the Roulers–Menin line which affords an extensive view in all directions. These heights were also exceptionally important for us, as they afforded us ground observation posts and a certain amount of cover from hostile view.

"The enemy's onslaught on the 20th was successful, which proved the superiority of the attack over the defense. Its strength did not consist in tanks. We found them inconvenient, but put them out of action. The power of the attack lay in artillery, and in the fact that ours did not do enough damage to the hostile infantry as it was assembling, and, above all at the actual time of the assault.

"The actions in the third battle of Flanders had presented the same set-piece characteristics as those in the second and the fighting at Verdun. The depth of penetration was limited so as to secure immunity from our counter-attack and the latter was then broken up by massed artillery."

As a result the German tactics were revised; the front line was strengthened and counter-attacks were made locally by a division of the second line behind each division of the first line.

"Early in October the artillery action revived and on the 2d and third artillery engagements of great violence took place. The infantry battle commenced on the morning of the 4th. It was extraordinarily severe and we came through it only with enormous loss. It was evident that holding the front line more densely, adopted at my last visit in September, was not the remedy. I now

recommended the IV Army to form an advanced zone—that is a narrow strip between the enemy's front line and the line which our troops were to hold by mobile defense. The enemy would have to cross this strip in making his attack and our artillery would have time to get into action on him before he could reach our main line of resistance. The great difficulty lay in withdrawing our troops from the advanced zone in case of attack and bringing the barrage back to our own line.

"There were further severe engagements on October 9 and 12. The line held better than on the 4th although in some places the enemy penetrated to a considerable distance. The wastage in the big actions of the fourth battle of Flanders was extraordinarily great.

"The fifth act of the great drama in Flanders opened on October 22. Enormous masses of ammunition, such as the human mind had never imagined before the war, were hurled upon the bodies of men who passed a miserable existance scattered about in mud-filled shell-holes. It was no longer life at all. It was unspeakable suffering, and through this world of mud the attackers dragged themselves slowly but steadily and in dense masses. Caught in the advanced zone of our hail of fire they often collapsed and the lonely man in the shell hole breathed again. Then the mass came on again. Rifle and machine gun jammed with mud. Man fought against man, and only too often the mass was successful."

In his review of this battle General Haig says:

"This offensive, maintained for three and a half months under the most adverse conditions of weather, had entailed almost superhuman exertions on the part of the troops of all arms and services. The enemy had done his utmost to hold his ground, and in his endeavors to do so had used up no less than seventy-eight divisions of which eighteen had been engaged a second and third time in the battle after being withdrawn to rest and refit. Despite the magnitude of his efforts, it was the immense natural difficulties, accentuated manifold by the abnormally wet weather, rather than the enemy's resistance, which limited our progress and prevented the complete capture of the (Passchendale) ridge.

"What was actually accomplished under such adverse conditions is the most conclusive proof that, given normally fine August, the capture of the whole ridge, within the space of a few weeks, was well within the power of the men who achieved so much. They advanced every time with absolute confidence in their power to overcome the enemy, even though they had sometimes to struggle through mud up to their waists to reach him. So long as they could reach him they did overcome him, but physical exhaustion placed narrow limits on the depth to which each advance could be pushed, and compelled long pauses between advances. The full fruits of each success were consequently not always obtained. Time after time the practically beaten enemy was enabled to reorganize and relieve his men and to bring up reinforcements behind the sea of mud which constituted his main protection.

"Notwithstanding the many difficulties, much was achieved. Our captures in Flanders since the commencement of the operations at the end of July amount to 24,065 prisoners, 74 guns, 138 trench mortars and 941 machine guns. It is certain that the enemy's losses greatly exceeded ours."

In this prolonged struggle probably at least two-thirds of the British divisions in France were engaged one or more times and according to General Haig, a still greater number of German divisions. The casualties in killed and wounded were very heavy on both sides; those of the British are given as 450,000.

French Attack on the Aisne.—While heavy fighting was going on in the north, General Petain launched his second successful attack October 22. The attack was made by the 6th French Army, General Maistre, at the salient of the German line northeast of Soissons and just south of the Ailette River. After a careful artillery preparation the infantry attack was launched and resulted in the capture of some 11,000 prisoners and the retreat of the Germans across the Ailette. Of the attack Ludendorff says:

"The French attacked simultaneously. For this they selected the favorable salient southwest of Laon known as the Laffeaux corner. We discovered their intention early in October; the army took full measures for defense, and was supplied with everything that was necessary. In spite of other advice, it wished to hold the salient, feeling confident of success.

"The French attack on October 22 was successful. One division succumbed to the effects of an exceptionally heavy gas bombardment, and gave way before the hostile attack. The enemy advanced toward Chavignon and so caused a narrow but deep penetration in the salient. This forced us to order its evacuation. The losses were very serious; once more several divisions were destroyed.

"This withdrawal of our line inevitably entailed the evacuation of the Chemin des Dames ridge.

"As at Verdun in August, the French, supported by remarkable masses of artillery, had fought vigorously."

Battle of Cambrai.—The battles of Flanders and on the French front had caused the weakening of the German II Army in the vicinity of Cambrai and this weakening had been observed by General Byng, who had relieved General Allenby. Byng planned an attack on this front and requested reinforcements to carry it through; it was not until the battle of Flanders was practically over that these could be sent him and then not as many divisions as requested.

The part of the enemy's front to be attacked was about 7½ miles southwest of Cambrai and was in the angle between the Cambrai–Bapaume road and the St. Quentin canal. Behind the advance posts was the main Hindenburg line with the equally strong reserve line

about a mile in rear. Behind and between the lines were strong posts consisting of intrenched villages, farms, woods, etc. The Hindenburg trenches were 15 feet wide and 9 feet deep.

The main attack was to be made between the Canal du Nord and the St. Quentin canal on a front of about six miles. For the attack General Byng employed six divisions in the front line and had one in reserve. Unlike previous attacks, there was to be no prolonged artillery bombardment; it was to be surprise attack in which the infantry was to be assisted by eight tank battalions equipped with nearly 350 fighting tanks. These were to destroy the wires, fight machine gun nests and assist the infantry by enfilading the trenches. In order to enable them to cross the trenches, each was provided with a huge drum of fascines which was to be dropped into the trench. The tank battalions formed three brigades each of which had 18 supply and 3 wireless signal tanks. Besides capturing the Hindenburg lines, one of the features of the attack was to make a pathway for a cavalry corps which was in reserve to cross the German lines and the St. Quentin canal and make a raid on Cambrai and the German communications. To aid the cavalry, 32 tanks were supplied with towing gear to remove the wire for the cavalry, and two tanks with bridging supplies; another tank carried a cable for signal service with 3d Army headquarters. In all there were 476 tanks. The tanks were brought to the front by rail at night and concealed in the woods in rear.

The attack began without warning at 6:20 a. m. November 20 when the tanks followed by infantry moved forward under a heavy barrage and the long ranged guns opened on the rear area. The Germans were completely surprised and in some respects the British as well, as most of the infantry got well beyond the Hindenburg reserve line on the first day and on the second day had reached objectives five miles in advance of the starting point. The cavalry did not fare as well as the bridge over which they expected to cross was broken down and the arrival of a German division from Russia that day prevented the British from developing their front here. The cavalry raid had to be given up as only one squadron succeeded in crossing the canal. From the 22d to the 30th, reserves were brought up by both sides and severe fighting took place in a contest to secure a ridge of high ground around Bourlon due west of Cambrai which commanded the ground both north and south.

The loss of the Hindenburg line was a shock to German G. H. Q. and immediate steps were taken to send reinforcements from other parts of the line to redeem the situation. The plan evolved was a

good one and consisted in attacking the British lines in a manner to cut off the salient they had captured. The attack on November 30 in the north was easily defeated but that made across the St. Quentin canal penetrated the British line about two miles before it was stopped. As the British had been unable to capture the Bourlon ridge they withdrew from the salient to the Hindenburg reserve line.

In the Cambrai attack the British claim to have taken 11,000 prisoners and either captured or destroyed 145 guns; the Germans claim to have taken in their counter-attack 6,000 prisoners and 100 guns.

The main feature of the Cambrai attack was that it established the value of tanks to infantry in an attack on favorable ground. The attack had not only justified the tanks but also the tank tactics employed. Thereafter the moral effect of the tanks on the Allied and German troops was apparent.

The tanks employed with the infantry were the heavy tanks, male and female; the former were equipped with 2 6-pounder guns and 4 light machine guns and the latter with 6 light machine guns. In addition to these, gun-carrying or supply tanks and wireless signal tanks were used as stated. The tank corps was organized into brigades, each composed of 3 battalions of four fighting sections each. The normal strength of fighting sections was 6 fighting tanks. None of the battalions employed were completely equipped.

CHAPTER XII.

OPERATIONS ON THE RUSSIAN, RUMANIAN, ITALIAN AND SALONIKA FRONTS IN 1917.

Russian Front.—The operations on the Russian front were greatly influenced by the political changes during the year. At the beginning of the year the reactionary government was in control and the discontent in the country and the army was steadily increasing. This period terminated on March 15 with the abdication of the Czar and the organization of the first provisional government. In this government Alexander Kerensky was the leading figure being first Minister of Justice and in later reorganizations, Minister of War and Marine and finally Prime Minister. Kerensky's government was overthrown on the 8th of November when the Council of the People's Commissioners under Lenin and Trotsky came into power.

During the first period, there were no important military operations. At its close General Alexieff succeeded the Czar as commander in chief of the Russian Army and Generals Russky and Brusilov retained their commands of the northern and southern groups. General Ewerts resigned the command of the central group and was replaced by General Gourko. In order to win over the soldiers of the army to the new government, various orders were issued to make the army more democratic and soldiers' committees were formed in the armies which gradually undermined discipline. In May both Generals Alexieff and Russky were relieved from command and General Brusilov was made commander in chief; General Guter was assigned to command of the southern armies. The Central Powers took advantage of the demoralization of the Russian Army to shift their troops. The best divisions serving on the Russian front were replaced by worn-out divisions from the west front and by divisions of an inferior character. These Powers were careful to avoid any operations that might arrest the progress of the revolution and assisted it by propaganda in the Russian armies. The Allies who had at first encouraged the revolution in the belief that it would lead to a more vigorous prosecution of the war soon realized their mistake. As a result of the urgent demands of the Allied Powers the Russian government consented to resume the offensive all along the Russian front on the 1st of July. On the front of the northern and central groups attacks were to be made on small fronts as the armies were in no condition for a general of-

fensive. Brusilov planned to make his principal offensive with his old group now under General Guter which consisted of the 11th, 7th, 8th and 2d Russian armies and occupied the front facing mainly Austrian troops from Brody on the north to the Carpathian Mountains on the boundary of Bukowina. His aim was to advance on a wide front on both banks of the Dniester River.

The operations in the south began on July 1 and during the first two weeks of July the Russians advanced some thirty miles on a front of one hundred miles. The difficulty of supply and the general condition of the armies prevented any further advance as the opponents were bringing up reinforcements. This attack compelled the German G. H. Q. to take action and shock divisions were sent from the west front to reinforce the armies attacked and enable them to counter-attack. The counter-attack with the shock troops was directed against the right wing of the 11th Army on the right flank of the long Russian line. The counter-attack was delivered on July 19 and by the end of the month the Russian armies were back across the frontier of east Galicia for the first time since the beginning of the war and Bukowina which had changed hands many times was again in possession of the Austrians. The 11th army had become thoroughly demoralized and its retreat compelled the withdrawal of the other armies that were also showing signs of disintegration. As a result of the Russian retreat General Guter was succeeded in command of the southern group by General Kornilov commanding the 8th Army; Kornilov later succeeded General Brusilov as commander in chief of the Russian Army.

In the north the Russians at first had some local successes of little importance. In the last days of August the VIII German Army in the extreme north took the offensive and early in September captured Riga the Baltic port that had resisted successfully during the last half of 1916. The 12th Russian Army retreated toward Petrograd. This was followed by the capture of the islands at the mouth of the Gulf of Riga in October from which the Germans could advance on Petrograd. In the latter part of October German forces debarked on the mainland east of the islands. Shortly after this the Kerensky government fell and on the 7th of December an armistice was declared between the Central Powers and the Bolshevik government. Military operations ceased on the Russian front in October.

The failure of the Russian armies to cooperate in a vigorous manner was largely responsible for the lack of greater success on the west front and the collapse of the Italian offensive.

Rumanian Front.—After the collapse of the Rumanian Army in 1916, the Rumanian front was taken over by the 9th, 4th and 6th Russian armies while the Rumanian Army was thoroughly organized by French officers and military supplies were forwarded through Russia by Great Britain, France and the United States. It was not until the latter part of July that the Rumanians were ready to undertake offensive operations and by that time the Russian armies were beginning to disintegrate.

Just about the time the Germans made their counter-attack in Galicia, the Rumanians assisted by the Russians began an offensive movement from the Sereth River about forty to fifty miles north of Galatz which was to be extended southward to that town. The opening operations were successful against the Austrian troops against whom they were directed, but a few days later the Russian general who was in command of the combined operations was directed by Kerensky to cease his operations in view of the critical situation farther north. In the meantime General Mackensen had moved German troops up to the point of attack and there attempted to force the crossing of the Sereth River. His attempt was unsuccessful and all operations on this front ceased in the latter part of August as the Russian armies were no longer in a condition to assist. Two days after the Russian armistice the Rumanians felt compelled to agree to a similar armistice with the Central Powers December 9.

Italian Front.—During the Somme drive of 1916, Italy declared war against Germany and General Cadorna was apprehensive of the appearance of German troops on the Italian front; he therefore requested reinforcement by British or French divisions. In the latter part of March General Foch and the Chief of Staff of the British Army visited Italy to confer on the general situation. As the Italians were still much stronger than the Austrians on that front and the Allied plan would keep the Germans engaged, it was decided not to reinforce the Italian Army which was to continue its Isonzo offensive simultaneously with the Allied attacks on the west front. The Italians had some 50 divisions under arms but were still relatively weak in artillery. In aircraft the Italians were now superior to the Austrians.

First Italian Attack, May–June.—The Italian plan was to attack along the Isonzo with the 2d and 3d armies. The 2d Army was to seize the heights on the east bank of the Isonzo from Gorizia about six miles northward; at the time the Italians had only the bridgehead at Plava on this front. When the Austrians concentrated here the 3d Army was again to press forward in the main attack along

the Carso Plateau in the south. According to the Allied plan the attack was to begin in April when the Allies attacked on the west front, but for various reasons the operations did not begin until May.

The first stage of the attack began on May 12 by a heavy bombardment of the Austrian heights north of Gorizia and at noon on the 14th the infantry advanced. The battle here lasted until May 22 and at its end the Austrian first line was captured over a length of about three miles. The second Austrian line was however on heights which commanded the first.

The second stage af the attack on the Carso plateau began by a heavy bombardment on May 22 and at 4 p. m. on the following day the infantry left their trenches. Between this and May 30 when the attack died out, the Italians had advanced their line on an average of about two miles. The attack however had not accomplished all that was hoped for as the key-point of the Austrian position was some two miles beyond the front reached.

In the meantime Austrian troops had been rushed westward from the Russian front and on June 1 a counter-attack was made on the Carso plateau which lasted until the 5th. Over a front of four miles the Italians were driven back at most about a mile and a quarter.

In view of the situation on the Russian front after the defeat of Brusilov's attack in July and the demoralization of the Russian armies, during the summer of 1917 General Cadorna again appealed to the French and British governments for reinforcements but as the armies of both of these powers were engaged on the west front his request could not be granted. He was therefore compelled to continue operations with his own troops which had lost heavily in the spring operations. The Austrians who had also lost heavily had the Russian front to draw on.

Second Italian Attack, August–September.—From the town of Plava on the Isonzo River the river valley runs northeastward for ten miles and southeastward for five miles. On the east side of the river along these fifteen miles is the Bainsizza plateau about five miles wide separated from the mountains to the east by a valley. In the spring attack south of Plava the Italians had secured a foothold on the plateau but could not advance from it.

The new plan of Cadorna consisted in crossing the Isonzo in the ten miles north of Plava and advancing southward to make himself master of this plateau from which the heights in rear of Gorizia could be attacked; this was the task assigned to the 2d Army. At the same time the 3d Army was to renew its attacks on the Carso plateau to secure the key-point—Mount Hermada.

On August 18 the new attack was begun by an intense bombardment all along the Italian lines from Tolmino to the Adriatic. That night bridges were thrown over the Isonzo at various points north of Plava and in the morning before the fog rose from the river valley the Italians attacked and in succession captured the Austrian lines and reached the crest of the plateau. Once on the plateau the progress was rapid and as the Austrian lines all along the Isonzo to the vicinity of Gorizia were turned; the Austrians retreated from the plateau fighting only rear guard actions. Monte Santo, the crowning peak at the southern end of the plateau fell on August 24 and the Italians were four miles northeast of Gorizia. South of the Bainsizza plateau and separated from it by a wide valley was another plateau which terminated near the Isonzo in a high mountain called St. Gabrielle which overlooked Gorizia. This was the next objective and although the attacks on it lasted through September and were made with great determination the summit could not be reached.

On the Carso plateau the 3d Army had in its opening attack on August 18 reached the line which it had taken in May but had been unable to hold. Here it remained subject to counter-attacks which it warded off until the early part of September when it again lost some of the ground gained.

At the end of September General Cadorna reported to his allies that his offensive of 1917 was ended. In the attacks north and south of Gorizia his losses in killed, wounded and missing were 350,000; with losses due to sickness, his casualties were about 700,000. The 2d Army especially suffered from the latter cause. It is probable that the Austrian losses were about as great as they appealed to the German G. H. Q. for assistance.

Austro-German Counter-Attack, October-December.—From the northern end of the Bainsizza plateau the Isonzo valley runs in a northwesterly direction for about twenty miles. In this stretch are the towns of Tolmino where the Austrians still held the river valley for several miles above and below and where their lines were in the mountains to the west, and Caporetto or Karfreit where the Italians held the river valley for several miles above and below and where the lines were in the mountains east of the river.

It was in the mountains to the east of this stretch of the Isonzo that in October the XIV German Army, consisting of six or seven divisions, was assembled for the purpose of breaking the Italian line opposite and reaching the plains of Italy behind the main body of the 2d Italian Army and the entire 3d Army. The II Austrian Isonzo

Army facing the 2d Italian Army on the Bainsizza plateau and the I Austrian Army facing the 3d Italian Army were to cooperate on the left of the German Army and the X and XI Austrian armies facing the 4th and 1st Italian armies were to cooperate on the right of the German Army. The concentration of the German Army had been discovered by the Italian air service but no particular steps were taken to meet the attack as General Cadorna felt confident that the Italian line would hold.

The attack began on October 24 after a short preliminary bombardment of the Italian position by artillery and trench mortars with high explosives and gas shells. While one part of the German force attacked the Italian lines east of the Isonzo another pushed up the valley of the Isonzo in the rear of these lines. On the 25th the Germans were across the valley of the Isonzo on the mountain crests west of the Isonzo and began to move down the various valleys toward the plain the left wing being directed on the town of Udine, and the right on the headwaters of the Tagliamento.

The left of the Italian 2d Army being turned on the 25th, that army evacuated the Bainsizza plateau and retired across the frontier followed by the II Austrian Isonzo Army. From the 25th of October to the 1st of November it was a race between the opposing forces as to which would reach the Tagliamento River first. In this race the Italians were successful, but at a very heavy cost. Artillery, trains and stores were abandoned or destroyed and the Italian armies reached the river with a loss of 250,000 to 300,000 men and 1,800 pieces of artillery captured by the enemy. The 3d Italian Army, although it had lost heavily was still in fighting trim but the 2d Army was no longer a unit. The Italians halted a few days on the Tagliamento which gave time for a partial reorganization and when this line was turned in the north the troops retired to the Piave River which was reached on November 10.

As soon as the news of the Italian reverses reached the Allies, the 12th French corps, 6 divisions, and the 14th British corps, 5 divisions, were started for Italy and in the last days of October the French were already crossing the Alps at Mount Cenis. The line eventually taken up by the Italians ran along the Piave River from the Adriatic to the foothills of the mountains, thence westward across the Mount Grappa group of mountains to the Brenta River where it connected with the lines of the 1st Italian Army, which prolonged the line across the Asiago plateau and through the mountains to Lake Garda. The 4th Italian Army, strengthened by some of the divisions of the 2d Army, held the line between the two rivers

while the 3d Italian Army held the line along the Piave. On their arrival the British and French corps were disposed at the most dangerous points of the line. The Austro–German attack had however by this time exhausted itself and neither the X or XI Austrian armies in the north nor the German and Austrian Isonzo armies were able to make any impression on the new line. During December therefore some of the German divisions were withdrawn.

The disaster that occurred on the Italian front led to the formation in November, 1917, of the Supreme War Council to coordinate operations on the west and Italian fronts. Its principal members were the Prime Ministers of Great Britain, France and Italy—Lloyd George, Clemenceau and Orlando and the military representatives of those countries, Generals Wilson, Foch and Cadorna. The American members Mr. House and General Bliss later joined the council. The military representatives under the leadership of General Foch advised the council but had no direct control of troops. A plan was proposed to make these representatives a directing war staff but this was not carried out and the army commanders retained their independence. When Cadorna was appointed military representative of Italy to the Supreme War Council, General Diaz succeeded to the command of the Italian armies.

Salonika Front.—The opposing lines on the Salonika front remained practically unchanged during the winter months of 1916–1917 after the capture of Monastir. The British held the line nearly ninety miles long from the Vardar River via Lake Doiran and the Struma River to the Aegean Sea. French, Russian, Serbian and Italian forces held the line about two hundred miles long extending from the Vardar River to Avlona on the Adriatic Sea. The II Bulgarian Army held the line of the Struma River in front of the British, the III Army of Bulgarians with some Germans held the center on either side of the Vardar River, and the I Bulgarian Army held the right of the line. Austrian troops occupied Montenegro.

In the spring General Serrail, who still commanded the Allied force, ordered a general attack but little progress was made as the opposing lines were well intrenched and his force was not strong enough to break through. The operations ceased at the end of a month. It was now evident that with the calls for troops on other fronts the Salonika force would be unable to advance without the assistance of the entire Greek Army. As it had been represented to the Allied Powers that the greater part of the Greek people were in favor of war on the side of the Allies but were restrained by the government in power, it was decided to force the abdication of King

Constantine and place the late Prime Minister Venizelos in power. On June 11 the King was requested to abdicate in favor of one of his sons selected by the Allies, and on the following day the King agreed to withdraw from Greece. Venizelos again became Prime Minister with full power as he had the support of two thirds of the members of the new Greek Chamber. On July 16, diplomatic relations with the Central Powers were broken off and Greece was at war. The remainder of the year was spent in mobilizing and reorganizing the army for active operations.

CHAPTER XIII.

OPERATIONS IN TURKEY IN 1917.

At the close of 1916 the military situation was anything but promising as viewed by Turkish Headquarters. In the east the Russians occupied Turkish Armenia on a line running roughly from Trebizond via Erzingan and Mush to the Arabian frontier. In the south General Maude had just begun his advance on Bagdad and it was evident that the Turkish troops in this section were dealing with a highly organized, well equipped force unlike that which had been defeated in the early part of the year. In the west the British forces were on the borders of Palestine with a well equipped army based on the railway which had been constructed across the desert in that year. In Hedjaz the Arabs were preparing to attack the railway to Medina and cooperate with the British. Notwithstanding these various threats troops had been withdrawn from Turkey for operations in Galicia and Rumania and the general condition of the army and country was chaotic.

"The people of Turkey were heartily sick of the war. Starvation and pestilence had raged throughout the land and Syria had not suffered the least. The Lebanon and even Damascus were depopulated by famine. Supplies of all kinds for the troops were hopelessly in arrear. Men came unwillingly to arms and desertion became an epidemic. One division that left Constantinople at full strength lost 3,000 deserters on the road. A regiment reached Mesopotamia with the loss of 500 deserters out of a total of 1,300 men. In the previous October, out of 2,000 sent in reinforcements from Constantinople to Aleppo only 966 arrived at their destination. In such conditions it was hard to make a plan of campaign."—Nelson's History of the War.

In the spring of 1917, when the British had captured Bagdad and were threatening an advance into Palestine, General Falkenhayn, the former Chief of Staff of the German Army with some German troops was sent to Turkey to reorganize the Turkish Army and direct operations. He established his headquarters at Aleppo the junction of the roads and railways running toward the Tigris River at Bagdad and into Palestine.

Palestine.—At the close of 1916 the British Eastern Column from Egypt under General Dobell had almost reached the boundary of Palestine and early in January, 1917, its advance guard reached the frontier town of Rafa. The railway head was still some distance in

rear and did not reach Rafa until March. The Eastern Column consisted of three divisions of Infantry, two divisions of mounted troops and the Imperial Camel Corps. It was well equipped with aircraft, armored cars and had a few tanks and a force of heavy artillery. Its operations were under the direct control of General Archibald Murray commanding the British forces in Egypt.

Two Turkish divisions and some cavalry, all that was left of the original forces that attempted to invade Egypt in 1915, was in its front under the original German commander, General Kress von Kressenstein. This force had been compelled to fall back from one position to another fighting rear guard actions as the British extended their railroad upon which the British troops were compelled to rely for supplies. No large British force could operate far from the railway and its water supply system because of lack of water in the desert. With the capture of Gaza on the coast twenty miles from Rafa the principal difficulties of the campaign would be over as the British would then reach the coastal plain of Palestine and be out of the desert.

Between Rafa and Gaza was a wide deep arroya called Wadi Ghuzze extending in a southeasterly direction far into the desert. On the west side of this the Turks had intrenched a ridge of sand dunes upon which they had been working for some months. However when the British captured the shore village which formed the right flank of the position in the latter part of February, the Turks withdrew behind the arroya and took up a position on some ridges of sand dunes in rear. The new line covered the approaches to Gaza and the road to Beersheba on a front of ten miles. The line was not continuous but consisted of detached strong points not thoroughly organized.

When it was learned that the Turks were falling back it was decided to attack them as soon as possible in order to capture Gaza before it was too strongly organized or the Turkish troops received reinforcements. As the railhead was still in rear and there was no abundant supply of water nearer than Gaza it took some time to prepare for the attack which could not be made until March 26. This was shortly after the British troops in Mesopotamia had entered Bagdad and the attention of the Turks was directed to that point.

Confident in the superiority of his command the British commander decided to send his mounted troops around the Turkish position to ward off any reinforcements that might be moving on Gaza and cut off the retreat of its garrison while he made a direct attack on the Turkish lines with two of his infantry divisions holding one

in reserve. The principal attack was to be made directly on the town of Gaza. Although the troops started before dawn they had to cross the Wadi Ghuzze and were delayed by a thick fog which covered the country before sunrise. As a result while the mounted troops fulfilled their mission and some of them entered the suburbs from the north and east the infantry was unable to penetrate the Turkish lines sufficiently to capture the town. The position reached that day was deemed untenable as the mounted troops could find no water and reinforcements were moving on the town. The mounted troops were therefore withdrawn across the arroya and the infantry fell back to the arroya, which was now held as the advance line.

The second attempt on the same general lines was made three weeks later. In the meantime the Turkish force had been increased to five divisions and a cavalry division and the British had been reinforced by one infantry division. The railway had in the meantime been extended to the British front and reservoirs of water had been constructed in the arroya for future operations.

The attack was begun on April 17 and was to be made in two stages in which the British infantry was to consolidate the positions gained the first day. As the Turkish position in front of Gaza was now much stronger than before and consisted of more than one line it was not expected to reach Gaza the first day. In this attack British monitors and other vessels assisted by bombarding Gaza from the sea. Tanks were used and some of the mounted troops dismounted to assist the infantry.

On the first day the three infantry divisions to whom was assigned the main attack made considerable progress and on the second day consolidated their positions. The third day's attack however met with little success and at several points the troops were driven back by counter-attacks. The attempt to carry the Turkish position with the troops available was therefore considered impracticable and the infantry retired to the line which had been consolidated.

The attempt to reach Gaza was now postponed until the latter part of October. In June General Allenby who had commanded the 3d British Army in the Arras attack assumed command of the troops in Egypt. General Chetwode who had been in command of the mounted troops had in the meantime been assigned to the command of the Eastern Column. The British force had been increased to seven divisions of infantry and four divisions of mounted troops organized as the 20th and 21st army corps and the Desert Mounted

Corps. The naval force was also increased to more effectively bombard Gaza and the positions nearby. The transport service had in addition to its motor trucks 30,000 pack camels.

The Turkish force encountered during the progress of the campaign that followed consisted of nine infantry divisions and one cavalry division probably of much reduced strength.

After study of the situation Allenby decided to leave a part of his forces to threaten the strong position of the Turks at Gaza and with his mounted troops and part of his infantry to capture Beersheba and roll up the left of the Turkish line which was neither so strongly intrenched nor held in such force as the position near Gaza. The plan involved much labor; the railway was extended in the direction of Beersheba some ten miles where it connected with a light railway extending some ten miles farther.

The attack began October 27 when the heavy guns began bombarding the Gaza positions; on the 30th both British and French battleships joined in the bombardment. That day the troops for the attack on Beersheba were organized for a night march.

Beersheba held by a Turkish division was captured on the 31st and 2,000 Turkish troops and 13 guns were taken. Mounted troops surprised the garrison by riding into the town through a gap in the defense line to the east where no attack was expected and prevented the destruction of many valuable wells.

A frontal attack was made at Gaza on the 2d to prevent troops from being detached to meet the flanking movement but the Turks held their ground. By the 6th however the flanking movements from Beersheba had developed to such an extent that the Turks were withdrawn on the night of the 6th and on the 7th the British occupied the town.

The Turks now retreated northward fighting rear guard actions as a rule and occasionally holding positions to enable the retreat to be effected without too great a loss. The main British force pursued up the Palestine plain, while one small column remained on the direct road from Beersheba to Jerusalem over the mountains. By the 16th of November the British occupied the seaport of Jaffa or Joppa and were ready to advance directly on Jerusalem. Some of the Turks had retired northward and some on Jerusalem.

The city of Jerusalem is 2,500 feet above sea level and the range upon which it stands terminates in the west in a series of rocky spurs separated by narrow valleys; through one of these runs the main highway from Jaffa to Jerusalem. This highway was the directrix of the movement on the city. Mounted troops were de-

tached to protect the movement from attacks from the north. The British troops of the right wing fought their way up the slopes of the mountains and on the 9th of December they cut off all communication with the city from the north, west and south. The Turks evacuated the town which was surrendered that day and retired eastward toward the Jordan River.

In order to more thoroughly protect Jaffa, toward the end of December the British attacked the Turks to the north and drove back their line to a distance of eight miles from the city. About the same time the Turks under German command made a counter-attack to recover Jerusalem. It was made with fresh troops along the road running north from Jerusalem to Nablus. The attack was repulsed and in the counter-attack the British advanced their line here to a point about eight miles from Jerusalem. The British line now ran from the Mediterranean coast eight miles north of Jaffa across the plain and hills to the point reached on the road from Jerusalem to Nablus and thence southward about three miles east of Jerusalem.

During this year the operations of the Arabs of Hedjaz were confined to raids on small posts along the railway as far north as the Dead Sea. A few large posts like Medina, Maan and Amman were still held by the Turks.

Mesopotamia.—General Maude, who was assigned to the command of the British troops in Mesopotamia in August, 1916, spent the months of September, October and November in reorganizing his command and his lines of supply. He states:

"By the end of November preliminary operations were well advanced. A steady stream of reinforcements had been moving up the Tigris for some weeks, and drafts were joining their units making good the wastage of the summer. The troops had shaken off the ill-effects of the hot weather and their war training had improved. Stores, ammunition and supplies were accumulating rapidly at the front, our communications were assured, and it seemed clear that it was only a matter of days before offensive operations could be justifiably undertaken. Training camps at Amara were broken up and the general concentration up stream of Sheikh Sa'ad was completed."

During the summer the Turks had reduced their force at Kut and at the same time shortened their line south of the Tigris east of Kut but extended it westward to guard against an attack from the south. The outer line ran from the Magasis redout on the Tigris to Atab on the Hai and thence to the Tigris above Kut at the Shumran bend. Behind the outer line was a network of interior lines. On the north bank of the Tigris the Sannaiyat position was strengthened and con-

sisted of seven or more distinct lines. The entire position was held by the XVIII army corps estimated by the British to have a strength of about 20,000 men.

General Maude's army for active operations consisted of four divisions of infantry organized into two corps and a division of cavalry. On the north bank of the river the troops left at the front were facing the Sannaiyat position and those on the south bank were occupying the Turkish lines which had been unsuccessfully attacked in the spring but from which the Turks had later withdrawn. This position was connected with Shiekh Sa'ad with a light railway constructed during the summer.

General Maude's plan of operations was to employ one of his corps in attacking the Turkish lines on either side of the Tigris River while the other corps with the cavalry moved to the Hai River in the vicinity of Atab and attacked the Turkish lines on both sides of that river. On the night of December 13 the cavalry with two infantry divisions moved out from the British lines and reached the Hai River in the vicinity of Atab in the morning and deployed on both banks of the stream. On December 20th began the attack of the Turkish lines east of Kut between the Tigris and Hai. In successive assaults the Turks were driven out of this area by the middle of January and the British reached the Tigris as far up as Kut. During the following month the British were engaged in driving the Turks out of the area south of the river between the Hai and the Shumran bend. By the middle of February the Turks were all on the north bank of the Tigris and the British were ready for the final operation of crossing the river. This was no easy matter as the river was in flood and about 350 yards wide. The most favorable location was the Shurman bend and here it was decided to cross. If the crossing could be effected the Turks would be compelled to retreat up the river or run the risk of being captured.

On February 23, under feints of crossing at various points, several battalions crossed the river in boats and with the assistance of covering artillery secured the bend on the north side. By 4 p. m. a bridge was constructed and the British began to cross the river. At this time the Turks were already in retreat and left only a rear guard to defend the exit from the bend. This rear guard retired during the night. During the operations on the south side of the Tigris the British force on the north bank continued its pressure on the Sannaiyat position and finally captured the last line of intrenchments on the day those on the south side effected a crossing.

On the 25th the cavalry aided by gunboats took up the pursuit and followed the Turks for some 50 miles when the column was halted to await the organization of the line of supply. The advance was then resumed and with little opposition the British forces entered Bagdad on March 11.

The recapture of Kut and the occupation of Bagdad restored the prestige of the British forces in Mesopotamia and had an immediate effect on the Turkish operations in Persia. The XIII Turkish corps which had advanced into Persia after the surrender of Kut and had reached Kermanshah and Hamadan immediately began its retreat. A British column was pushed up the Diala valley to cut off its retreat, but by a skillful maneuver the Turks succeeded in eluding this column and joined the XVIII corps in the Tigris valley between Bagdad and Mosul. As the Russian revolution took place about this time combined operations were no longer practicable and the remainder of the year was spent by the British forces in extending the sphere of British control around Bagdad. British columns advanced up the valleys of the Euphrates, Tigris and Diala and held the country in all directions for about 100 miles from Bagdad.

General Falkenhayn had planned an expedition for the recovery of Bagdad to move down from Aleppo but the British operations around Gaza compelled him to abandon this movement and send his troops into Palestine. In November, 1917, General Maude died at Bagdad and was succeeded by one of his corps commanders, General Marshall.

CHAPTER XIV.

GENERAL PLANS AND OPERATIONS ON THE WEST FRONT IN 1918.

As a result of the weakening of the Allied effort on the Russo–Rumanian front the operations of the Allies in 1917 were not as successful as had been hoped for at the beginning of the year. On the west front the Germans had been obliged to surrender a large area of the occupied territory when they retreated to the Hindenburg line in March and this had been added to by the British attacks at Arras, Cambrai and in Flanders and by the French attacks at Verdun and along the Chemin des Dames front. In their attempts to break the German line at Arras and on the Aisne front and later to clear the Belgian coast the Allies had not been successful.

In Italy by a sudden counter-attack under German leadership the Italian Army had not only lost the positions along the Isonzo gained through the hard fighting in 1915, 1916 and 1917 but had lost very heavily in men and war material and had been obliged to evacuate the country as far back as the Piave River and the mountain frontier east of Lake Garda almost to the Italian plain. However with the assistance of British and French troops the Austro–German advance had been definitely stopped.

An armistice had been arranged between Russia and the Central Powers and it was certain that no further direct assistance could be expected by the Allies from the Russian Army. The Russian contingents that had fought in France and with the Salonika Army had been withdrawn from the front as their discipline had been destroyed by the revolution. The only effective aid from Russia would be due to the desire of the Central Powers to hold the provinces then in their power in order to utilize their resources to supply their countries, prevent the spread of Bolshevism, and exploit in case of eventual victory. This would hold a considerable Austro–German force on this front.

In Rumania the army had been neutralized by the armistice with the Central Powers and it was improbable that it could again take up arms unless Bulgaria or Austria made peace.

While little had been accomplished by the Allied force at Salonika the Greek government had now declared war on the side of the Allies and the Greek Army was being mobilized and prepared for the campaign against Bulgaria.

In Turkey most of Palestine and all of Mesopotamia were in the possession of the British and it was quite certain that the Turkish Army would offer little resistance to the further advance of the British armies although reinforced by a few German battalions. The collapse of Turkey would probably occur early in 1918 unless some of the British troops were withdrawn.

Allied Plans.—During the winter of 1917–1918 the military representatives on the Supreme War Council made an estimate of the general military situation on all fronts. The estimate was as follows: (At the Supreme War Council—Wright.)

WEST FRONT.

Allied Divisions.	*German Divisions.*
167	178
97 French, 57 British, 10 Belgian, 2 Portuguese and 1 American.	Rifles....1,232,000
Rifles....1,480,000	Sabers.... 24,000
Sabers.... 74,000	Field Guns.... 8,000
Field Guns.... 8,000	Heavy Guns.... 5,500
Heavy Guns.... 6,800	
3 American combat divisions were in training areas in France.	

RUSSIAN AND RUMANIAN FRONTS.

Allied Divisions.	*Central Divisions.*
	92
Russian — unknown but of little value.	German....58
Rumanian, 18 infantry, 2 cavalry	Austrian....34

ITALIAN FRONT.

Allied Divisions.	*Austro-German Divisions.*
61	46½
6 French, 5 British and 50 Italian	3 German and 43½ Austrian.
Rifles....633,000	Rifles....439,000
Sabers.... 6,400	Sabers.... 3,400
Field Guns.... 3,700	Field Guns.... 3,000
Heavy Guns.... 2,100	Heavy Guns.... 1,500

SALONIKA FRONT.

Allied Divisions.	*Central Divisions.*
23-5/6	27
8 French, 4 British, 2-5/6 Italian, 3 Greek and 6 Serbian.	2 German, 2 Austrian and 23 Bulgarian.
Rifles....219,000	Rifles....228,000
Sabers.... 7,000	Sabers.... 3,000
Field Guns.... 1,100	Field Guns.... 972
Heavy Guns.... 380	Heavy Guns.... 353

PALESTINE-TURKEY FRONT.

Allied Divisions.		*Central Divisions.*	
8		12	
7 British and 1 Indian.		1 German and 11 Turkish.	
Rifles	100,000	Rifles	29,000
Sabers	16,000	Sabers	9,000
Field Guns	410	Guns	200 to 300
Heavy Guns	93		

MESOPOTAMIA-TURKEY FRONT.

Allied Divisions.		*Turkish Divisions.*	
6		5	
1 British and 5 Indian.			
Rifles	125,000	Rifles	18,000
Sabers	9,000	Sabres	1,000
Field Guns	300	Guns	100
Heavy Guns	50		

While the general situation of the Allies was not so good as in the beginning of 1917 when the great Russian Army was in the field, the Allies still had numerical superiority in all arms on the west and Italian fronts, about equal strength on the Salonika front, a great superiority on the Turkish fronts and had been greatly strengthened in morale by the declaration of war by the United States. It was assumed that the Germans would probably transfer more divisions to the west front and assume the offensive with numerical superiority in which case the Allies must ward off this attack until reinforcements arrived in such numbers as to enable them to assume the offensive. The Allied reinforcements expected were mainly the divisions of the American Army; of these a few had already reached France but only one was deemed sufficiently trained to take a place in the line. Similarly on the Italian front it was assumed that the Austrians would probably transfer more divisions to the west front and attack the Piave line. To reinforce this line the shattered divisions of the Italian Army were being reorganized and an additional army was to be formed. As some of the German divisions had been withdrawn there was little danger of the Austrians breaking the Piave line so long as the British and French divisions remained to strengthen the front. On the Salonika front the Bulgarians had shown no disposition to attack and it was not probable that there would be any active operations here until the Greek Army was mobilized and the Allies were ready to assume the offensive. In Turkey the British had great superiority both in Palestine and Mesopotamia; to utilize these troops it was advisable to continue the offensive.

The plan of the Allies was therefore to remain on the defensive on all fronts except the Turkish fronts until a sufficient numerical superiority could be secured to assume the offensive. The time when the offensive could be renewed would depend on the rapidity with which the American troops could be brought across the Atlantic and fully trained and equipped abroad to take their place in line. It was assumed at the time that 1,000,000 American combatants about 30 divisions with corps and army troops would enable the Allies to assume the offensive with confidence of success.

Although the defeat of the Italian Army had led to a permanent Supreme War Council of the Allied Premiers with military representatives of high rank it had not resulted in a supreme commander of the Allied forces. The proposition to make the military representatives an interallied supreme general staff did not receive the approval of the council nor did the proposition of General Foch that a general reserve should be constituted to be at the disposition of these representatives to be employed as seemed best for the general good. The armies of the various countries were still under the absolute control of their commanders in chief.

Toward the close of 1917 there was another ministerial crisis in France as a result of dissatisfaction in that country resulting from the Italian defeat and Mr. Clemenceau was appointed Prime Minister; like LIoyd George he became practically a temporary dictator.

As a result of the unrestricted U-boat warfare which was declared by the Germans in February, 1917, and the destruction of American vessels, on April 6, 1917, Congress declared that a state of war existed between the United States and the Imperial German Government. War with Austria was declared in December, 1917, when the Italians had fallen back to the Piave, but war was not declared with the other two Central Powers.

When war was declared with Germany the American Army numbered only 200,000 men two thirds Regulars and the remainder National Guardsmen who had been called into the service for duty along the Mexican frontier. The authorized strength of the Regular Army was at once increased and the new and old regiments were recruited as much as possible by voluntary enlistment. The National Guard regiments of the various States were recruited in a similar manner. The units of both were later filled to war strength by men drafted under the Selected Service Act of May 19, 1917. Under this act the first registration June 5, 1917, covered the ages of 21 to 31; the second registration July 5 and August 24, 1918, covered all who had reached the age of 21 since the first registra-

tion. The total number registered numbered 10,000,000 of whom 2,600,000 were drafted into the service. From these the Regular and National Guard divisions were completed and the divisions of the National Army were formed. As soon as possible 32 divisional cantonments were erected for the training of the troops and schools were established for the training of officers.

General Pershing was sent as commander in chief of the American forces abroad and in conference with foreign officers decided the elements which were to compose the divisions and the higher units of the new army as well as the organizations needed for the Service of Supply. At the request of the foreign missions a number of Regular regiments of the army and one of the Marine Corps were at once sent to France there to be organized with additional regiments to follow as the 1st and 2d divisions. The other divisions were to be sent abroad as soon as they had received sufficient preliminary training and were to complete their training abroad before being sent as divisions into the line. The training abroad was to consist of a period in the training areas and a period in the trenches as battalions or regiments.

The American infantry division, about 28,000 men, was to consist of four regiments of infantry each with a machine gun company with 16 pieces, three regiments of artillery, two field and one heavy, three machine gun battalions each of four companies, a regiment of engineers, a signal battalion, trains, etc.; its total rifle strength was about equal to a British division of 13 battalions.

For the Service of Supply a large number of special troops were sent as soon as organized: such as engineers for constructing and operating railways, for wharf construction, for forestry operations, for road building and labor battalions for general labor. Air, hospital, chemical warfare, tank and camouflage services were organized at home and abroad.

Under the assumption that the war might last until 1920 and require an army of several million men, a vast program of construction was undertaken much of which proved unnecessary due to the early termination of the war. Due to the German offensive, the divisions were shipped earlier than had been planned and therefore they were equipped with artillery, machine guns, trench mortars, tanks, etc., from the French and British depots after they reached Europe.

German Plans.—The following extracts from Ludendorff gives the military situation as it appeared to the German G. H. Q. in the autumn of 1917 when the German G. H. Q. decided to attack on the west front:

"In the late autumn, 1917, General Headquarters was confronted by a decisive question: should it utilize the favorable conditions of the spring to the defensive and make only subsidiary attacks, say in Macedonia or Italy?

"The Quadruple Alliance was held together only by the hope of a victory by the Germans.

"The Austro–Hungarian Army was worn out; it had lost 1,800,000 prisoners; it was short of recruits. Its fighting value was slight, though against Italy it had, on the whole, sufficed. If Russia actually dropped out we might hope that the army would continue equal to the task that fell to it. Whether it could spare forces for other objects was doubtful. In 1917 we had already received an intimation from the Imperial and Royal Government that the army could go on fighting only for a limited period; we might anticipate something similar in 1918. We had to take into consideration that Austria–Hungary might actually arrive at the end of its military power. It was clear that its political power would not last one hour longer. Nothing but the army held the Dual Monarchy together.

"The Bulgarian Army had sufficient recruits; it was, however, found necessary to enroll numerous men of other races. In 1917 the troops had fought tolerably well; their spirit had improved. The communications had been put in order behind their whole front. . . . The training of the army as a whole was furthered by means of schools established by Group Headquarters. Thanks to its past work, the latter could anticipate the coming struggle with some confidence. I often conversed with General Gantshev, and requested him to do his part in promoting the improvement of the Bulgarian Army. In view of the events of the previous year he considered its position secure. It was only the mobilization of the Greek Army that made him anxious. . . . .

"Bulgaria had occupied all the territory it wanted to keep when peace came; it was sure of its gains—it thought no more of war, but only of enjoying in peace and quietness what it had won. The people and the army were tired of war. . . . .

"The only conclusion I could come to about Bulgaria was that it would remain faithful to us as long as all went well with us. But if the prospects of victory diminished, or still worse, if we suffered failure, then things were bound to turn out just as in fact they have. . . . .

"Turkey was faithful to the alliance, but at the end of its strength; whether through its own fault or that of others was immaterial. Its man-power was greatly reduced, and the army existed to a certain extent only on paper. Palestine was sure to fall an easy prey to England unless the troops were reinforced. Turkey's disintegration was bound to produce political results over a wide area, and must, therefore, be prevented, even though the decision of the war might be brought about elsewhere.

"In Germany the national spirit appeared to be better than with our Allies; nevertheless, it had sunk very low and feeling had become worse. I must admit I formed too favorable an estimate of our remaining energy. I hoped that the recruiting question would be put in order.

"The army had come victoriously through 1917; but it had become apparent that the holding of the Western front purely by a defensive could no longer be counted on, in view of the enormous quantity of material of all kinds which the Entente had now at its disposal. Even where tactical conditions had been absolutely normal we had lost ground and suffered heavily. These losses had indeed been greater than we had incurred in well conducted attacks. The enormous material resources of the enemy had given his attack a considerable preponderance over our defense, and this condition would become more and more apparent as our infantry approximated more nearly in character to a militia, as our best men became casualties, and as discipline declined. . . . .

"The troops had borne the continuous defensive with uncommon difficulty. Skulkers were already numerous. They reappeared as soon as the battle was over, and it had become quite common for divisions which came out of action with desperately low effectives, to be considerably stronger after only a few days. Against the power of the hostile weapons the troops no longer displayed their old stubborness in defense; they thought with horror of fresh defensive battles and longed for the war of movement. In this the Germans had achieved brilliant success in Rumania, eastern Galicia, Italy and at Cambrai, and had once more proved their superiority although their staying power was no longer what it had been in 1914. There had been incidents, too, which indicated that their cohesion was no longer the same. As they were depressed by defense, their spirits rose in the offensive. The interests of the army were best served by the offensive; in defensive it was bound gradually to succumb to the ever-increasing hostile superiority in men and material. This feeling was shared by everybody. In the west it wanted to attack and after Russia's collapse expected it with the most intense relief. Such was the feeling of the troops about attack and defense. It amounted to a definite conviction which possessed them completely that nothing but an attack could win the war. Many generals, among them the most distinguished, spoke in the same strain. . . . .

"The condition of our allies and of ourselves and that of the army all called for an attack that would bring about an early decision. This was possible only on the Western front. All that had gone before was merely a means to the one end of creating a situation that would make it a feasible operation. Until now this situation had not arisen. We had been able to strike a blow at Italy with six or seven divisions, but for the Western front that was not a sufficient force. I set aside all idea of attacking in Macedonia or Italy. All that mattered was to get together enough troops for an attack in the West.

"For this we needed enormous material resources and strong troops who, with their leaders, had been trained for the attack. If this could be effected in time we could—indeed, we must, attack. The attack is the strongest form of combat; it alone is decisive; military history proves it on every page. It is the symbol of superiority. Delay could only serve the enemy, since he was expecting reinforcements.

"That the attack in the West would be one of the most difficult operations in history, I was perfectly sure, and I did not hide the fact. . . . .

"It was not necessary to leave German troops on the Italian front, and preparations were made for their departure about the new year."

As to the situation on January 1, 1918, he says:

"Owing to the breakdown of Russia the military situation was more favorable to us at New-Year's 1918 than one could ever have expected. As in 1914 and 1915, we could think of deciding the war by an attack on land. Numerically we had never been so strong in comparison with our enemies."

In preparation for the offensive he says:

"The training of the army for the offensive was another tremendous task. For this we had to utilize the winter of 1917–1918, as the previous one had been devoted in training for the defense.

"In the same way in which tactical theories had been summarized in the 'Defensive Battle', so now the 'Offensive Battle in Position Warfare' came into being. We had to revive in the minds of the fighting forces all those excellent offensive principles which had inspired our pre-war regulations. They had to be supplemented by more recent experiences in actual battle. Without checking the vigor of the attack we had to keep down losses as much as possible. The whole line of thought had to be diverted from trench warfare back to the offensive.

"While in the defense the forces in a given sector were more evenly distributed, in the attack the problem was to discover some decisive point and arrange distribution accordingly. In defense, commanding ground had lost much of its value. The battle of Arras (1917) had once more demonstrated it. Positions were held which were completely open to the enemy's view. Often the troops had thought they could not exist without the possession of some height or other, but if they did not get it they managed to continue the fight. In the attack, in the war of movement, the capture of some high ground brought about a tactical decision. Its possession must therefore be striven for as a matter of principle.

"It was necessary to create anew a thorough understanding of the extent of front to be allotted in attack and to emphasize the principle that men must do the work not with their bodies alone, but with their weapons. The fighting line must be kept thin, but must be constantly fed from behind. As in the defense it was necessary in the attack to adopt loose formations and work out our infantry group tactics clearly. We must not copy the enemy's mass tactics, which offer advantages only in case of untrained troops.

"In the infantry company the light machine gun had to become a thoroughly familiar weapon. It was, however, still regarded as an auxiliary weapon. The fact that the light machine gun was now the true 'infantryman', while the 'infantryman' of yesterday was nothing more that a 'rifle-carrier' had not yet sunk deep into the mind and conscience of the infantry, let alone the rest of the army. Owing to its power compared with that of the rifle, the light machine

gun, as its introduction became more general, was bound to become the main infantry weapon. This did not mean that the rifleman was not to shoot. Quite the contrary. The greatest stress was laid on that part of his duties.

"The light machine gun and the rifleman formed the infantry group, which had to hang together in trouble and danger and the life-and-death struggle. Its fire power was further increased by quick-firing weapons of all kinds and various sorts of rifle grenades.

"To the heavy machine gun, with its longer range and greater effect, fell the task of facilitating the approach of the groups to the enemy's position by keeping the latter under fire. Of course it had to accompany the advance of the infantry. Therefore, although itself 'infantry' it had become a sort of 'companion' or auxiliary arm to the infantry.

"The second auxiliary arm, of special use at short ranges against targets offering more than usual resistance, was the light trench mortar. Originally evolved for trench warfare, it had now to be made mobile and capable of direct fire by means of suitable sights. The light trench mortar was part of the infantry battalion, which became more and more the tactical unit of the division just as the group within was the tactical unit of the battalion.

"These auxiliary arms were not yet effective enough to enable infantry to advance on its arduous way without excessive losses. Of course massed artillery prepared that attack. It could however, do so only in a general way and left untouched too many of the enemy's strong points, which had to be dealt with later in detail at the shortest ranges. In each division, therefore, field guns were withdrawn from their units for short-range work, and were attached to battalions or regiments as infantry guns.

"In addition, each division had a company of medium trench mortars, which were also made as mobile as possible and allotted to battalions as required. Finally, there were flame projectors which could be brought into action at the shortest ranges against an enemy in blockhouses, dugouts and cellars.

"We had no tanks. They were merely an offensive weapon and our attacks succeeded without them * * * *

"At Cambrai the tanks were very effective. But there they ran into a position held only lightly, chiefly by older men, and poorly equipped with artillery. In all other cases, although they had been a nuisance, they had achieved no decisive results. In the fighting around Bourlon and in Bourlon Wood our infantry disposed of tanks at close quarters with multiple grenades. Our artillery shot them to pieces. Even the steel-cored bullets used by our machine guns had been good enough. The best weapons against tanks were good nerves, discipline and intrepidity, which enabled many brave men to climb on them or destroy them by short-range fire. Not until our infantry lost its discipline and fighting capacity did the employment of massed tanks, combined with artificial smoke, produce a fatal effect on the course of events.

"We formed detachments of captured tanks. I had a look at the first one in February, 1918, at an exercise by one of the assault

battalions. It did not impress me. Our own tank detachments suffered heavy losses in the fighting which followed without effecting anything."

It is stated that the Germans had only 15 tanks of their own manufacture which were very heavy and first used in the spring of 1918; these were begun in 1917.

"In order to provide aircraft support for the infantry, special battle airplane flights were formed. As had been done by individual airmen, they dived down from great heights and flew along at a low level, attacking with machine guns and light bombs the infantry lines, the artillery and, as the practice became extended, the enemy's reserves and transport columns, as well as columns of troops coming up further in rear. Originally intended to be an 'auxiliary' arm to the infantry, these battle flights were finally given important tactical tasks. The airmen, in the course of their duties, were not only reconnaissance troops who had to fight, but they had like the infantry, artillery and all the other arms, to take part in the fighting on the ground. Like the other combatant forces, they were a destructive arm in the great battle on land. This, indeed, became their main object and the aerial combat was only a means of attaining it.

"For the advance of the infantry in the offensive battle, the concentrated preparation by massed artillery was the most important. It was necessary to bring up twenty or thirty batteries, about one hundred guns to each kilometer of front to be attacked. These masses of guns and ammunition had to be got up close to our foremost lines; only then could they engage targets far behind the enemy's front line without having to change position as the battle progressed. At the same time they had to be covered from view both from the front and the rear. In these positions in the open it was not intended to fight an artillery duel for days on end; both guns and ammunition would have been annihilated. Nor was it possible to range as we used to do; this would have attracted the enemy's attention, and the artillery action would have started before the battle itself under conditions unfavorable to us. At shortest ranges the effect of the artillery was to be supplemented by trench mortars.

"General Headquarters intended that after a short artillery bombardment, lasting only a few hours, the infantry, which was held in readiness in the forward positions, should advance to the assault. This short storm of fire was expected to neutralize the enemy's artillery by means of gas, which spread over large areas, and kept his infantry in the dugouts. At the beginning of the infantry assault, the artillery, while continuing to keep down that of the enemy, was to lay down a barrage in front of the infantry and pave the way for it like a gigantic roller. As the range increased, the barrage became thinner as the shorter range guns dropped out, and finally at extreme ranges, it ceased, and the infantry lost its protection. By this time, some artillery must be already in more forward positions, from which to support the further advance. In spite of all auxiliary arms and 'infantry guns' the infantry could not do without it.

"The farther infantry advanced, the more clearly its character approximated to open warfare. Finally, as our operations progressed, we would come up against a new front, which for a time we would not be able to overcome, as happened in Rumania, Italy and eastern Galicia. Then we should have to return to the defensive and distribute our forces in depth.

"Our big attacks had clearly demonstrated the importance of supply, and attention was directed to it as a matter of course. All preparations had to be made to follow the attack across the fortified zones with railways, roads and telephone lines.

"In preparation for attack we did not forget defense, as counter-attacks were to be expected. The principles of defense were retained; we only laid greater stress on anti-tank measures. Both in attack and defense the auxiliary arms served this purpose also. In the artillery, especially in the case of field guns and light trench mortars, training in individual fire against tanks was considered of decisive importance. The allotment of special ammunition to the heavy machine guns was increased more extensively. Our positions were examined as to their liability to attack by tanks; traps and stops were made, barricades constructed, mines put down, and anti-tank guns dug in at many points.

"During January and February the divisions in the West that were intended for the attack were taken out of line; some of them were replaced by those that had come from other theaters. From this time on they had to devote themselves entirely to training and equipment. We were unable to equip all the divisions equally with stores and horses, and had in the beginning to confine ourselves to those who were to open the attack. Similar action was taken in regard to the formations not included in the divisions, such as army field artillery, heavy artillery, trench mortars, etc. The horses of the shock divisions were given extra forage rations.

"General Headquarters regretted that the distinction between 'shock' and 'trench' divisions became established in the army. We tried to eradicate it, without being able to alter the situation which gave rise to it.

"In the meantime we had gradually got up everything that could be thought of as required for the attack. Some divisions were still on their way from the East."

Selecting the Front of Attack.—Ludendorff states:

"We hoped that the forces we were collecting from all quarters would enable us to attack on a continuous front of over 50 kilometers (31 miles) allotting twenty to thirty batteries, without trench mortars to each kilometer of front. By thinning at suitable places we could extend the front still more; we had at that time 25 to 30 divisions more than the enemy on the whole western front. . . . We thought of carrying out the attack with 50 or 60 divisions. In order to effect this, the corresponding weakening of other parts of the line was unavoidable.

"It was difficult to decide where to attack, but it was necessary to do so early. It took weeks, and required considerable foresight

and the most detailed preliminary work, to concentrate the troops in a confined area, bring up by rail the tremendous quantities of ammunition and other stores of all kinds, carry out the work allotted to the troops themselves, such as preparing battery positions, screening roads, constructing anti-aircraft shelters, and preparing gear for crossing the trenches, and finally to deploy for battle.

"Of course all this increased the danger of discovery. It was therefore necessary to commence dummy works on the fronts remote from the attack, which, as a matter of fact, served as the basis of attack later on. But most of the available labor troops were required on the front of attack at an early date. The preparations on other fronts could not be extensive, but there was some chance of misleading the enemy, and the deception was to be completed by skilfully conducted defensive measures.

"I discussed the selection of the front of attack with the chiefs of staff of the army groups, and with the officers of my staff, and heard their opinions. Three sectors were considered—Flanders between Ypres and Lens, between Arras and St. Quentin or La Fere, and on both sides of Verdun, leaving out the fortress. As is always the case, there was a great deal to be said for and against each proposal.

"The enemy was in great strength about Ypres and Arras, in front of the Ailette position, and farther to the east, as far as Verdun; the weakest part was on both sides of St. Quentin; north of that town the enemy line had been denser since the battles of Cambrai.

"In the north the ground was difficult. The condition of the Lys valley, west of Lille, across which the main force of the attack would pass, depended to an extraordinary degree upon the season and the weather; before the middle of April its passability away from the roads was doubtful. That was very late, in view of the Americans.

"In the center the ground itself caused no difficulties, but further progress would be hampered by the crater areas of the Somme battle.

"The attack at Verdun would lead us into very hilly country.

"These two attacks could take place at any time of year.

"Tactical conditions, therefore, favored the center sector; here the attack would strike the enemy's weakest point, the ground offered no difficulties, and it was feasible at all seasons.

"Strategically the northern attack had the advantage of a great, though limited, objective. It might enable us to shorten our front if we succeeded in capturing Calais and Boulogne. The attack on Verdun might also lead to an improvement in our front, though more of a tactical nature. The center attack seemed to lack any definite limit. This could be limited by directing the main effort on the area between Arras and Peronne, toward the coast. If this blow succeeded the strategic result might indeed be enormous, as we should cut the bulk of the English Army from the French, and crowd it up with its back to the sea.

"I favored the center attack; but I was influenced by the time factor and by tactical considerations, first among them being the weakness of the enemy. Whether this weakness would continue I

could not know. Tactics had to be considered before purely strategical objects, which it is futile to pursue unless tactical success is possible. A strategical plan which ignores the tactical factor is foredoomed to failure. Of this the Entente's attacks during the first three years of the war afforded numerous examples.

"After determining the divisions and other forces available for the attack, it was decided to strike between Croisilles, southeast of Arras, and Moeuvres, and omitting the Cambrai re-entrant, between Villers–Guislain and the Oise, south of St. Quentin. It was to be supported on its left by a subsidiary attack from La Fere.

"The preliminary work and the conduct of the attack made it necessary to interpolate two army headquarters, and new lines-of-communication inspectorates. The Seventeenth Army formerly the Fourteenth in Italy, was put in between the Sixth and Second opposite Arras, and the Eighteenth, between the Second and Seventh Armies, opposite St. Quentin and La Fere. The boundary between the Seventeenth and Sixth was about half-way between Lens and Arras, that between the Seventeenth and Second approximately at Moeuvres. The boundary between the Second and Eighteenth Armies was formed, roughly, by the Omignon brook, that between the Eighteenth and Seventh was just south of La Fere. . . . .

"For the decisive operation the Seventeenth and Second Armies were to remain under the orders of the army group of Crown Prince Rupprecht. The Eighteenth Army joined that of the German Crown Prince. . . . It was desirable to make the fullest possible use of the resources of the group of the German Crown Prince, and this was facilitated by the organization adopted. . . . .

"The possibility of broadening the attack on the north toward Arras, and on the south toward the left bank of the Oise, was anticipated.

"Feints and preparation for further attack were made; between Ypres and Lens; between Reims and the Argonne; on the old battlefields of Verdun and between Saarburg in Lorraine and Ste. Marie-aux-Mines, and also in the Sundgau. . . . .

"All fronts maintained their defensive arrangements in case the enemy should himself attack. In some places it was intended to retire in that case.

"Work had been carried on along these lines according to program and with the greatest devotion from the middle of January. By the beginning of February the attack was fixed to commence on March 21, although the situation in the East was still quite obscure. The military situation, however, made a decision imperative. Later on we could always make changes, but we would be unable to make a fresh start."

Allied Line in the West.—After the operations in Flanders in 1917, the 5th British Army took post between the 3d British Army and the 3d French Army on the front between Cambrai and St. Quentin. During January and February it relieved the 3d French Army and extended its flank to Barasis south of the Oise where it connected with the 6th French Army. General Haig now held a

front of about 125 miles of which the 5th Army held 42 miles and the 2d, 1st and 3d armies each about 28 miles. With its two Portuguese divisions, the British Army had about 60 divisions which were nearly equally distributed among the four armies. The 5th Army had 14 infantry and 3 cavalry divisions organized into 4 army corps and a cavalry corps; of the infantry divisions 11 were in the trenches and 3 in reserve. The 3d Army on its left had also 4 army corps, 16 divisions, with 10 divisions in the trenches and 6 in reserve.

"The general principle of our defensive arrangements on the front of these Armies was the distribution of our troops in depth. With this object three defensive belts, sited at considerable distances from each other, had been constructed or were approaching completion in the forward area, the most advanced of which was in the nature of a lightly held outpost screen covering our main positions.

"Behind the forward defenses of the 5th Army, and in view of the smaller resources which could be placed at the disposal of that Army, arrangements had been made for the construction of a strong and carefully-sited bridge-head position covering Peronne and the crossings of the Somme south of that town. Considerable progress had been made in the laying out of this position, though at the outbreak of the enemy's offensive its defenses were incomplete."

The defense system was constructed by labor organizations consisting of prisoners of war, Italians, Chinese, East Indians and British. From the latter part of December until the time of the attack these labor organizations on the 5th Army front were increased from 27,000 to 68,000 men.

"**Battle Zone.**—Planned for defense of great depth, varying from 2,000 to 3,000 yards, with good successive lines carefully sited and combined. Diagonal switch trenches gave support to strong points and wired strategical places. It was hoped that they would stop the foe from spreading outwards and rolling up our position if he managed to penetrate at dangerous spots in our defenses. The most important localities were always garrisoned. Plans and preparations for the best use of the troops both in defensive battle and in counter-attack were worked out with skill, partly for the service of those men who were chosen to guard the various sectors and partly for the proper handling of reinforcements arriving from elsewhere.

"**Forward Zone.**—Its defensive scheme was ordered also in depth, and of course its garrison was always on guard against surprise, to break up the foe's attacks, and to force him to waste large quantities of ammunition and to bleed an increasing number of his brigades. The backbone of the defense in this zone was a combination of wire entanglements with machine guns very well hidden in dugouts.

"**Rear Zone.**—Ludendorff struck when the rear lines were very imperfect, ranging in depth from a foot to thirty-six inches. A foot seems to have been about the average in most places. These lines

were placed from four to eight miles behind the battle zone and G. H. Q. did all that could be done in a few weeks, always in conjunction with our armies, to choose the best positions, and to spitlock their projected defenses. They formed very good halting places for stern rearguard actions, but not for a defensive stand by weak numbers against superior forces constantly renewed.

"The work to be done being enormous, priority had to be given as follows to certain essentials:

1. Wire.
2. Shell-proof accommodations, including machine gun emplacements, observation posts, and battle headquarters.
3. Communications, including roads, tracks, railways and communication trenches.
4. Earthworks.

"On March 21, the battle zone in most sectors was finished—that is to say, a decisive grapple could have been fought in it by a defense reasonably manned." (The Fifth Army in March, 1918—W. Shaw Sparrow.)

After the close of operations in 1917, due to the severe losses in the operations of the year, the British infantry divisions were reduced to ten battalions in order to strengthen the battalions and the brigades were reduced from four to three battalions. The British War Office hoped that a fourth battalion for the brigades in France would be furnished by the American government but this plan was not approved by our government. For defense, each division had two brigades in the forward and battle zone and one in reserve; of the former, one battalion was in the outpost line and forward zone and two in the battle zone. Of the three divisions in the reserve of the 5th Army, two were far in rear and temporarily held under the control of the British G. H. Q.

On the right of the British was the 6th French Army and thence the French line extended to the Swiss frontier; about two thirds of the French divisions were in line and about one third in reserve. The line was strongly held as far as St. Mihiel and thence more thinly to the Swiss frontier. As a general reserve, General Petain had selected the 3d French Army, General Humbert, whose divisions were generally in the area between the Oise and Marne rivers and certain divisions of the 1st French Army, General Debeney, in the Toul area.

The Allies labored under the disadvantage of not knowing where the blow would come as the German reserves were assembled far in rear and only moved up during the last days before the attack. Demonstrations were made by the Germans all along the front from the Channel to Verdun and it was not certain which of the demonstrations would develop into the main attack. General Haig was

naturally concerned about the left of his line which protected the Channel ports and had this part been weakened it is certain that the attack would have been made here as Ludendorff says an attack here would have given the greatest strategic results. General Petain was naturally concerned mainly with his own front and wanted his reserves where they could be employed on his own front. As a result, the right of the British line, the 5th Army, was the weakest part of the Allied front and the weakest part of the line of the 5th Army was its extreme right where a corps of three divisions with two cavalry divisions in support held nearly a half of the front of that army. This particular front was under ordinary conditions protected by the Somme River and its marshes but at this time these marshes were unusually dry and the river low. To strengthen his line General Haig needed some of the British divisions that were at the time in Italy and Turkey. To support the 5th Army in case of attack he was obliged to depend on General Petain; both commanders assumed that the 5th Army would be able to hold out long enough to permit the French forces to reach it in time.

Of the indications of the German offensive, General Haig says:

"Towards the middle of February, 1918, it became evident that the enemy was preparing for a big offensive on the Western front. It was known from various sources that he had been steadily increasing his forces in the Western theatre since the beginning of November, 1917. In three and a half months 28 infantry divisions had been transferred from the Eastern theatre and 6 infantry divisions from the Italian theatre. There were reports that further reinforcements were on their way to the West, and it was also known that the enemy had greatly increased his heavy artillery in the Western theatre during the same period. These reinforcements were more than were necessary for defense, and, as they were moved at a time when the distribution of food and fuel to the civil population in Germany was rendered extremely difficult through lack of rolling stock, I concluded that the enemy intended to attack at an early date.

"Constant air reconnaissances over the enemy's lines showed that rail and road communications were being improved and ammunition and supply dumps increased along the whole front from Flanders to the Oise. By the end of February, 1918, these preparations had become very marked opposite the front held by the Third and Fifth Armies, and I considered it probable that the enemy would make his initial effort from the Sensee River southwards. As the 21st March approached it became certain that an attack on this sector was imminent, and counter-preparations were carried out nightly by our artillery on the threatened front. By the 21st March the number of German infantry divisions in the Western theatre had risen to 192, an increase of 46 since the 1st November, 1917.

"On the 19th of March my Intelligence Department reported that the final stages of the enemy's preparations on the Arras–St. Quentin front were approaching completion, and that from information obtained it was probable that the actual attack would be launched on the 20th or 21st of March. On our side our dispositions to meet the expected offensive were as complete as the time and the troops available could make them.

The Attack.—The order for the opening of the attack was a brief one. In substance it was as follows:

1. The attack will take place 21.3. Penetration of enemy's first line 9:40 a. m.
2. Army group Crown Prince Rupert will cut off the British salient at Cambrai as their first tactical objective and reach the line Croisilles–Bapaume–Peronne. If the attack progresses favorably, the right wing (XVII Army) beyond Croisilles will advance. Further instructions for this army group contemplate that the left wing will hold the line of the Somme at Peronne, that the center will advance to the line Arras–Albert, the right will attack in flank the British line in front of the VI Army cause it to fall back and release more German troops from trench warfare and permit them to advance.
3. Army group German Crown Prince will reach the Somme south of Omigon Creek and the Crozat canal. If it succeeds in advancing rapidly the XVIII Army will seize the crossings of the Somme and canal.

As planned the XVII Army, General Otto Below, which held the front from beyond the Scarpe to Cambrai was to make its first attack on the center of the 5th British Army between the Sensee River and the Canal du Nord or between Croisilles and Moeuvres on a front of ten miles and break through the center of that army. The II Army, General Marwitz, was to attack the left wing of the 5th British Army and advance westward with his center directed on Peronne. By a rapid advance of these two armies, it was hoped to cut off the retreat of the 5th corps of the 3d British Army which occupied the Cambrai salient. The XVIII Army was to attack the right wing of the 5th British Army and advance to the Somme and the Crozat canal protecting the left flank of the II Army. The general plan was to drive the British out of their trenches first from the Sensee River to the Oise, if possible capturing the 5th British corps, and then extend the action northward until the entire British Army had evacuated its trenches, at least as far as the Lys River. Open warfare would result and with the German superiority it was hoped to win a decisive victory before the French reinforcements arrived.

On the morning of the attack, the 3d British Army, General Byng, from north to south consisted of the 17th, 6th, 4th and 5th corps and the attack of the XVII Army fell on the 6th and 4th corps. The left wing of the 5th British Army, General Gough, which was attacked by the II Army consisted of the 7th and 19th corps and the right wing attacked by the XVIII Army consisted of the 18th and 3d corps. On the fronts of attack, the Germans were naturally very much stronger than the British and had sufficient reserves it was thought to keep up the attack.

"On the 21st, just before 4 a. m. the battle began with a tremendous crash on the front of forty-five miles between Croisilles and La Fere. . . . . For about two hours the whole of our artillery engaged the enemy's batteries mainly with gas shells; then it was switched to trench bombardment in which the trench mortars also took part. A little before 9 a. m. most of our fire, only a portion being kept on hostile batteries and special points, was concentrated to form a barrage. Our infantry advanced to the assault."

On March 21 there was a heavy fog which covered the entire area and did not clear up until noon. It was favorable for surprise but interfered with air and artillery service and general cooperation. According to British accounts the front of the attacking divisions was about 2,000 yards and each of the three regiments had two battalions in the front line and one in reserve. The leading battalions were in several lines; the first was formed of infantry groups with light machine guns and was fairly continuous; next came a line of riflemen then heavier machine guns; next came the battalion headquarters with light trench mortars either in batteries of six or distributed two to each battalion; next came the reserve battalions each with a battery of field guns attached.

The British troops were prepared for the attack and the XVII, II and XVIII armies succeeded only in capturing the forward zone and penetrating in places the battle zone. On the extreme right of the 5th Army the British 3d corps was withdrawn to the Crozat Canal. The 22d again opened with a fog and on this day the XVII Army captured the battle zone on the front of attack and the 5th British corps began to withdraw from the Cambrai salient pursued by the right of the II Army. On the front of the 5th Army the II and XVIII armies captured the battle zone and the third zone and the British began to withdraw to the Somme River. On the right of the 5th Army the XVIII Army crossed the Crozat Canal. On the 23d, the XVII Army was held up by the British in the third zone; the right wing of the II Army reached and near Peronne crossed the Canal du Nord and the left wing reached the Somme at and above

Peronne. The XVIII Army crossed the Crozat Canal and advanced about five miles beyond it. As the advance of the right wing of the II Army threatened the rear of the British troops facing the XVII Army, on the 24th the 3d British Army began its retreat all along the front from Croisilles southward and to the north withdrew to its rear position between Croisilles and the Scarpe. That night the XVII Army and the right wing of the II Army was on a north and south line just west of Bapaume while the left wing of the II Army was held up at the Somme where the British had destroyed most of the bridges. French reinforcements began to arrive on the 23d to support the right wing of the 5th British Army and General Humbert of the 3d French Army took command of these and the 3d British corps on the right. This somewhat delayed the advance of the left wing of the XVIII Army but its right wing crossed the Somme in the vicinity of Ham and advanced some miles to the west. On the 25th all the British troops north of the Somme were placed under the command of General Byng of the 3d Army who found himself compelled to withdraw his right to the Ancre River pivoting on his left. The XVII and the right wing of the II Army moved forward in pursuit and reached the Ancre west of Peronne that night. The left wing of the II Army crossed the Somme this day and reached a line four miles to the west. The right of the XVIII Army was marching on Roye while the left captured Noyon.

After the second day, the German G. H. Q. realized that due to the stubborn resistance of the British forces which had prevented the capture of the troops in the salient and compelled the use of reserves, the original plan could not be carried out and directed the commanders of the II and XVIII armies to take as their objective the capture of Amiens the great railway center through which ran the main lines connecting the British and French areas. In accordance with the new plans, the right wing of the II Army made an effort to reach Amiens via Albert while its left wing advanced south of the Somme River. The XVIII Army sought to reach Amiens via Montdidier. The XVII Army by attacks all along its front was to prevent troops from being withdrawn from its front. On the 26th, the critical situation on the west front led the British and French governments to select General Foch as commander in chief of the armies to coordinate operations. As soon as the attack developed General Haig sent for reserve divisions from his 1st and 2d armies and by the 26th five of these had reached the front; of these four were employed north of the Somme and one to the south; other divisions were on the way. French divisions of the 1st Army were also reaching the front under the command of General Debeney and

they were brought to the Montdidier front. General Fayolle was placed in command of the 1st and 3d French armies and such other divisions as could be assembled. The German attempt to reach Amiens failed as the right of the II Army could not pass Albert nor the left pass the line Hamel–Moreuil. The XVIII Army captured Montdidier and crossed the Avre River but there its advance was stopped on April 4 after an advance of nearly 40 miles in about two weeks. During the last days of the battle, the XVII Army attacked on its extreme right north of the Scarpe but was repulsed by the right of the 1st British Army. During the early days of April the lines were consolidated but towards the end of the month the Germans made a last attempt to gain possession of the high plateau east of Villers Bretonneux between the Somme and Luce rivers from which to bombard Amiens some ten miles to the west; in this they were unsuccessful. Towards the close of the battle the G. H. Q. of the 5th British Army was withdrawn and the British troops between the Somme and Avre rivers became the 4th Army under General Rawlinson.

In a tactical sense the attack had been a great success but in a strategic sense it was a failure. It had resulted in a vast extension of the German lines which it now became necessary to strengthen and in the possession of an area in which it would take time and labor to construct the necessary communications to the rear. The Germans claim to have captured 90,000 unwounded prisoners but in so doing their total casualties were as high if not higher than the Allies. These casualties fell on their best troops— the shock divisions—and lowered the standard of the entire army. It was during the battle that the long range gun mounted in the Gobain forest in the angle of the Oise and Ailette opened fire on Paris.

The only American force engaged in these operations was a battalion of the 6th Engineers which was attached to the British Army and engaged on bridgework near Peronne. In his report General Haig mentions it as "rendering gallant service" in the retreat in which it acted as infantry.

American Troops in France.—At the beginning of the great offensive there were six American divisions in France undergoing different stages of training. The general method of training was as follows:

On arrival in France the artillery of the division was detached and sent to a special camp where it received its guns and had special training. The infantry was sent to its special area for preliminary training before it entered the line during which many of its officers

were detached to the army schools of the Allies and at the close of the tour spent a short time with Allied troops in the trenches. The division was then sent to some part of the Allied line where a battalion of each regiment was put in line with a company in the first line and the others in reserve for a short period of training in defense. If the artillery brigade was through preliminary work at this time it took part in this training. After the three battalions had been in the line, the division returned to its training area and took part in divisional training for the offensive. The division as a whole finally returned to the line and relieved a French division and took part in raids.

A complete course in training could not be given the American divisions which arrived in 1918 after the beginning of the German offensive; some divisions were engaged before their artillery had joined them from the artillery training schools. Corps schools were established for the training of officers and a central training school was established at Langres for the training of officers for the general staff and for the training of officers in all the special arms and engines which had been introduced into the Allied armies since the beginning of the war.

Of the six divisions in France at this time, the 1st division was holding a part of the French front in the Toul sector; the 26th and 42d divisions had just finished their first tour in the trenches and the 2d was about finishing this tour. The 32d division and 41st division had not been in the trenches as they had been assigned as replacement and depot divisions.

The American Army was placed under the orders of General Foch on March 28th, and on General Pershing's suggestion, the 1st division was relieved in the Toul sector by the 26th division and the 1st division was sent to the reserves north of Paris where it later entered the line near Montdidier. The 42d division returned to the front and relieved a French division near Baccarat where it had its first training.

April Attack on the West Front.—By the end of March, German G. H. Q. realized that the offensive of the XVII, II and XVIII armies had reached its limit and at best these armies could only hold the ground gained until the divisions that had been first engaged had been reorganized and had time to rest and the lines of supply over the battle area had been thoroughly organized. North of the XVII Army the VI Army, General Quast, between the Scarpe and Lys rivers and the IV Army, General Arnim, between the Lys and the Channel had not yet been engaged, while the British armies in

their front, the 1st and 2d, Generals Horne and Plumer, had undoubtedly sent reinforcements to the 3d and 5th armies. Preparations had already been made for an attack by the VI Army and early in April orders were given for its execution. The opening attack was to be made by the VI Army between the Lys River and the Bethune-Bassee Canal. The results of this attack would determine whether the aim would be to turn the position of Arras from the north or Ypres from the south. The IV Army was to be ready to attack north of the Lys on the right of the VI Army. The troops in both German armies were inferior to those employed in the March attack.

The British line between the Lys River and the Bethune–Bassee Canal, about a 12 mile front, was held by four divisions of which the two northern divisions had already been engaged in the battle of March. The next was a Portuguese division which had occupied the line for some time and was about to be relieved. On the front north of the Lys where the IV Army was to attack were three divisions which had been engaged in the March battle. In reserve, south of the Lys were two divisions also previously engaged; north of the Lys were two fresh divisions.

The preliminary bombardment began on the evening of April 7 with gas shells on the entire front of the 1st Army. The infantry attack was launched on the morning of April 9 in a thick fog by the right wing of the VI Army and in the course of the day the Germans broke through the Portuguese division at Neuve Chapelle and crossed the Lys River between Estaires and Armentieres; in the direction of Bethune the attack was held up. The general line of attack thereafter was made in the direction of Hazebrouck. On April 10 the left wing of the IV Army attacked the Messines–Wytschaete ridge which was taken on the 11th and this army then attacked the Kemmel ridge, the divide between the Lys and Yser rivers, while the VI Army attacked on either side of the Lys River. It was on the 11th as the first reserves arrived from the 3d and 4th British armies that General Haig issued his famous order:

"There is no other course open to us but to fight it out. Every position must be held to the last man; there must be no retirement. With our backs to the wall, and believing in the justice of our cause, each one of us must fight on to the end. The safety of our homes and the freedom of mankind depend alike upon the conduct of each one of us at this critical moment."

After the 12th the lines south of the Lys became more or less stabilized as the Germans could make no further advance and the fighting became confined to the front north of the Lys. On the 16th the left wing of the 2d British Army retired from the Passchendale

ridge to the line close to Ypres held before the attack in 1917, and on the 17th the right wing of the IV Army made an unsuccessful attack north of Ypres. The struggle for Kemmel ridge southwest of Ypres continued to the end of the month during which time the center of the Allied line between the Lys and Ypres was gradually taken over by French divisions sent by General Foch.

The attack like that south of Arras was a tactical success but without strategic results. The British line had been pierced on a front of 20 miles to a maximum depth of 12 miles and the attack had caused the 2d Army to retire from the Passchendale ridge which had been secured by the desperate fighting of 1917. The salient gained with heavy losses by the German armies was of no strategic value and was an element of weakness in their line.

May–June Attack on the West Front.—In the March and April attacks German G. H. Q. had employed all the armies between the Channel and the Oise River which with the exception of the XVIII Army constituted the group of armies under Prince Rupert of Bavaria. The attacks were made on the front held by the British Army but as a result of the penetration of the British front a large number of French troops became involved in the resulting battles, first on the southern face of the Somme salient and later on the northern front of the Lys salient. This had resulted in a weakening of the French front which extended originally from the Oise to Switzerland and the employment of practically all the French reserves. The first effect which resulted from this was the penetration of the line held by the left wing of the 6th French Army between the Oise and Ailette rivers which ran through Barasis. This line was attacked by the right wing of the VII German Army, General Boehn, early in April and the French were compelled to retire behind the Ailette River.

The greater part of May was a comparatively quiet one on the west front as both Allied and German armies were resting and reorganizing the divisions that had been engaged in the March and April offensives. By the end of May due to the reorganization of the shipping scheme, six more American divisions were in France. The 4th, 28th, 35th and 77th were receiving preliminary training in the British area and the 3d and 5th in the American area. Of the divisions previously in France, the 1st division had entered the front near Montdidier where on May 28th it captured and held the town of Cantigny and established the reputation of the division as a shock division. The 2d division was moved from the St. Mihiel front to the north of Paris in order to relieve the 1st division. The

32d division was assigned as a combat division and went to the Vosges front for training. At the end of May therefore there were eleven American combat and one replacement division in France.

Immediately after it became evident that the Flanders attack had failed to reach its objective the German G. H. Q. in order to retain the initiative began to plan an attack on a new front. Thus far all the armies of the group of Prince Rupert had been engaged and nothing further could be accomplished on their front until these armies were rested and reorganized and the Allied troops in their front had been reduced. Thus far only the XVIII Army of the group of the German Crown Prince had been engaged and its losses had not been excessive. It was therefore planned that the next attack should be on the front of this group from which Allied troops had been withdrawn to reinforce the armies north of the Oise. The program decided on was:

"1. Attack by the VII and I armies from the front Anizy on the Ailette River to Berry au Bac on the Aisne at the crossing of the Laon–Reims road.
2. Prolongation of the attack to the right across the Ailette toward the Oise and on the left as far as Reims.
3. Attack by the XVIII Army west of the Oise with the principal effort toward Compiegne."

The second part of the program was to follow immediately after the first if the attack was successful but the third would take place later as there was not sufficient artillery to conduct an offensive on the entire front without reducing the artillery on the front of the group of Prince Rupert to a dangerous degree. Several weeks were required to make the necessary preparations and the attack did not take place until the latter part of May.

The front selected for the first attack was the famous Chemin des Dames ridge which had been captured from the Germans during 1917. It was held by a corps of the 6th French Army, General Duchesne, which occupied the line between the Oise and Reims; on the right of the corps attacked was a British corps and on the left another French corps. Many of the divisions of these three corps had been engaged in the operations in March and April and were sent to this sector which was considered a quiet one. The German plan was discovered through prisoners the day before the attack but adequate preparations could not be made to meet it.

The attack made on the morning of May 27 after the usual short artillery preparation met with unusual success and by night the 6th French Army was swept off the Chemin des Dames ridge and across the Aisne River. The troops at the center of the attack even

reached the Vesle River at Fismes. On the 28th the attack was extended to the right and left as planned as far as the Oise and Reims while the center advanced southward toward the Marne. On the 29th Soissons was taken on the right, the center reached the Ourcq River and the left reached the Vesle. On the 30th the attack was extended westward to the Oise where the right wing of the VII Army crossed the Ailette and the French withdrew toward the Aisne; southwest of Soissons the Germans could make no headway as the French made a strong stand on the hills southwest of the town; in the center the Germans reached the Marne east of Chateau Thierry and on the extreme right they reached the difficult hill region southwest of Reims.

On June 1 the main attempt of the Germans was to gain ground to the west and this day they entered Chateau Thierry on the north bank of the Marne but were unable to secure the bridges across the river. North of Chateau Thierry their line ran roughly through Vaux, Bouresches, Belleau and Torcy to the bend of the Ourcq. North of the Ourcq the Germans were stopped at the edge of the forest of Cotterets and on the Aisne five miles below Soissons. North of the Aisne they were unable to drive the French back to the Aisne in the area between the Oise and Aisne rivers.

The success of the Germans in their attack had been greater than the German G. H. Q. had anticipated but the area gained was a difficult one to supply as the main railway running into it from Laon to Soissons ran through a tunnel between Anizy and Soissons which was partly destroyed by the German cavalry in 1914. It was also a difficult one to extend as the Marne was on the south, the hilly country southwest of Reims on the east, and the forest of Cotterets with the hilly country southwest of Soissons on the west.

General Foch was a great believer in strategic reserves which could be employed on any threatened front. As soon therefore as he assumed command he began the formation of strong reserves under General Fayolle behind the Allied front from Amiens to the Ourcq. From these reserves assistance was sent to the British and now they were employed to stop the German advance. Due to the excellent system of transportation organized by the French some of these divisions were on the front in a short time both on the west and south fronts of the German salient. For the east front he temporarily drew the reserve divisions of the 4th French Army east of Reims. Among the divisions employed by General Foch to stop the German advance were the 2d and 3d American divisions although the latter division had had no training in the trenches. Of these divisions General Pershing says:

"The 2d division, then in reserve northwest of Paris and preparing to relieve the 1st division, was hastily diverted to the vicinity of Meaux on May 31, and early on the morning of June 1, was deployed across the Paris–Chateau Thierry road near Montreuil aux Lions in a gap in the French line, where it stopped the German advance on Paris. At the same time, the partially trained 3d division was placed at French disposal to hold the crossings of the Marne, and its motorized machine gun battalion succeeded in reaching Chateau Thierry in time to assist in successfully defending the river crossing.

"The enemy having been halted, the 2d division commenced a series of vigorous attacks on June 4, which resulted in the capture of Belleau Woods after severe fighting. The village of Bouresches was taken soon after and on July 1, Vaux was captured."

It would probably be more correct to say, it would have stopped the German advance, as there was still a thin screen of French troops between the 2d division and the Germans when they halted; the French withdrew June 4th.

The first and second parts of the German plan were over on June 1. The attack of the XVIII Army and the right wing of the VII occurred on June 9. General Foch knew that such an attack must follow the German advance into the Marne salient and the 3d French Army west of the Oise as well as the French troops between the Oise and Aisne were well prepared to meet it. The attack on the front of the 3d French Army made some headway on the 9th and 10th but when the French counter-attacked on the 11th and regained some of the ground, while the German force east of the Oise could make no headway, orders were issued to stop the offensive.

A few days after the repulse of the XVIII German Army, occurred the last attack of the Austrian troops in Italy; it met with defeat and restored the morale of the Italian Army which henceforth looked forward to a renewal of the offensive. As the Austrians were now reduced to the defensive, German G. H. Q. requested that some of its divisions be sent to the west front to reinforce the Germans there; four divisions were sent.

Notwithstanding the three great offensives, the Allied situation was improving from day to day. Since the beginning of the war a relatively large force was retained in Great Britain in view of a possible invasion in addition to the troops being trained there. This force was now released and sent to General Haig. In addition two divisions were withdrawn from Italy and as rapidly as possible white troops were withdrawn from Palestine and replaced by Indian troops. The British divisions in France were being reorganized and trained for attack. General Foch withdrew four of the French divisions from Italy and received two Italian divisions to replace the

French divisions left in Italy. French divisions were also relieved by American divisions on quiet fronts and the trained American divisions were incorporated in the French armies on the active fronts.

As a result of the successful defense against the attack of the XVIII Army and the defeat of the Austrian attack in Italy, there had been a great change of feeling at the Allied G. H. Q. since the first days of June when the Premiers of Great Britain, France and Italy united in a cablegram to the President of the Uuited States requesting that the American contingent be increased to 100 divisions. Now the Allied commanders were confident that the worst was over and that any further offensive by the Germans could be met with confidence. It was assumed that as the Germans had failed to widen their dangerous Marne salient on the west they would soon try and widen it on the east and General Gouraud who commanded the 4th French Army east of Reims was warned to be ready for it.

In the meantime, the west and south front of the Marne salient were reorganized. The 10th French Army under General Mangin now held the front between the Oise and Ourcq rivers and to this army was assigned the 1st and 2d American divisions both temporarily in reserve. The 6th French Army under General Degoutte held the front from the Ourcq to the Marne and along the south side of the Marne. The 26th division which relieved the 2d division early in July was in the front line of the 6th French Army between the Marne and the Ourcq and the 4th division was in reserve in the same sector. South of the Marne the 3d division still held the front from Chateau Thierry to the Surmelin River and in reserve near Montmirail was the 28th division. The 5th French Army, General Berthelot, held the front from the Marne to Reims and the 4th French Army held the front as far east as the Argonne. The 42d division was now in the reserve of the 4th Army. The 5th, 32d, 35th, 77th and 82d divisions were occupying quiet sectors on the French front from the vicinity of Toul to the Swiss frontier. Eight American divisions, the 29th, 30th, 33d, 37th, 78th, 80th, 89th and 92d were in British or American training areas and in addition there were two replacement divisions the 41st and 83d whose artillery was being trained for corps artillery. Early in July the actual strength of the American forces in France was given as about 900,000 men of whom 650,000 were combatant troops.

Last German Offensive.—The situation as it appeared to the German G. H. Q. at the beginning of July, 1918, was as follows:

"The long rest gradually improved the condition of the troops, The battalions of the Crown Prince Rupprecht's group reached a

fairly satisfactory level of strength, not much below the English standard. The army group of the German Crown Prince had, of course, been heavily taxed in the constant fighting; but there were sufficient reserves at hand to make me hopeful that during the lull the battalions might, with few exceptions, be brought up to the French standard.

"The battalion strength had been reduced, but was still high enough to allow us to strike one more blow that should make the enemy ready for peace; there was no other way.

"Again and again our thoughts returned to the idea of an offensive in Flanders. Strong English reserves were still assembled here, even after the French divisions had been withdrawn under the pressure of the battles with the army group of the German Crown Prince. But an offensive at this point still presented too difficult a problem. We had to postpone it.

"The bulk of the enemy's reserves was the arc described by the Eighteenth and Seventh Armies in the direction of Paris, while the line from Chateau Thierry–Verdun was only weakly held. General Headquarters again decided to attack the enemy at his weak point. Accordingly, an attack on both sides of Reims was planned for the middle of July, whereby the rear communication of the Seventh Army between the Aisne and the Marne would be incidentally greatly improved. Immediately following this operation we meant to concentrate artillery, trench-mortars, and flying squadrons on the Flanders front, and possibly attack that a fortnight later. There were hopes that if the offensive at Reims succeeded, there would be a very decisive weakening of the enemy in Flanders.

"In order to reduce transportation movements to a minimum and accumulate enough artillery for the two offensives, the fifth and sixth guns were in many places reissued to the field artillery from the reserve of guns. For a short time this increased number of guns had to be served by the batteries, although their personnel was not increased for the purpose. Batteries were also transferred from the East.

"General Headquarters was in a very difficult position as regards fixing a time for the offensive. By the middle of July the movement of troops and other preparations for the attack on both sides of Reims would have been completed, but for the sake of the troops I should like to have waited a little longer. At a pinch, however, it would do, and postponement would have been of advantage to the enemy also. So we decided to stand by our schedule, and keep the first days of August in view for the Flanders offensive.

"The preparations for the fourth great offensive in the West were carried out on exactly the same lines as those for the battles of March 21 and May 27.

"The Seventh Army was to effect a crossing of the Marne east of Chateau Thierry and then advance on both sides of the river in the direction of Epernay, while the First and Third attacked from the east of Reims to Tahure. These armies were to bring their right wing past the Foret de la Montagne de Reims to Epernay, and make Chalons-sur-Marne their principal objective. The offensive of this

army group left untouched the enemy line approximately from the Ardre to the east of Reims, and thereby gained a considerable breadth that seemed to favor its chances of success. The junction of the two attacking groups in the direction of Epernay might produce great results. The attack was to be made chiefly by those divisions that had carried out the advance across the Chemin des Dames. This made great demands upon our troops, but in our position there was no other course possible, and it allowed the divisions of the army group of Crown Prince Rupprecht all the more rest before the work that lay in front of them, the offensive of Flanders.

"In order to relieve the Seventh Army Headquarters, the Ninth Army Headquarters from Rumania was pushed into the line on both banks of the Aisne, between the Oise and the Ourcq.

"In the attack on Reims we reckoned on an enemy counter-offensive between the Aisne and the Marne, with Soissons as its principal objective, and we organized the Ninth Army and the right wing of the Seventh accordingly.

"Originally the attack of the army group of the German Crown Prince was to be carried out on July 12, but, in order to make thorough preparations possible it had unfortunately to be postponed until the 15th. On the 11th or 12th, while the preparations were in full swing, a deserter brought news that a big tank offensive from the forest of Villers–Cotterets was imminent and this report gave us additional reason to re-examine and perfect our defensive measures. At the most critical point, southwest of Soissons, we had placed a division that had fought with special success in the East, and which had always met the demands made upon it in the West. This division had not taken part in the May battles, and was therefore as much rested as could be allowed to any division. In this respect, at any rate, we were no worse off than the enemy. Farther south, two divisions, not fully rested, and whose battalion strength was not up to the standard required, held that space along the front that was usually allotted to one division only. The other divisions were good trench divisions, and held normal divisional fronts; a few were kept behind the lines as reserves. The fortification of our positions was, of course, not far advanced; high ground obstructed the view in front of and still more within them. Influenza was prevalent, but not more so here than anywhere else along the front. The attack that had been announced never took place, but I hoped that the news would have thoroughly aroused the men. . . . .

"We attacked early on the 15th. Our crossing of the Marne was a remarkable achievement, which succeeded, although the enemy were fully prepared for it. The Seventh Army, between the Marne and the Ardre, also penetrated the most obstinately defended positions. The Italian divisions stationed there suffered particularly.

"About five kilometers south of the Marne the attacking troops came upon an enemy force so strong that it could be overcome only by bringing a large number of batteries over the river, and so the attack at this point came to a standstill. On the 16th, by hard fighting, we slowly gained ground up the Marne and toward the Ardre.

"According to plan, the enemy (4th French Army) had withdrawn in front of the First and Third Armies, to their second position, and held us firmly all along the line.

"By noon of the 16th General Headquarters had given orders for the suspension of the offensive of the First and Third Armies, and for their organization for defense by withdrawing certain divisions for this purpose. A continuation of the offensive would have cost us too much. We had to content ourselves with the improvement in our position brought about by regaining possession of the heights we had lost in the spring of 1917, and we had even secured a deep forward zone. The troops that had been withdrawn were at the disposal of the group of the German Crown Prince or of General Headquarters as reserves. I considered it of the greatest importance that they should be available as soon as possible.

"Once the difficult decision to suspend the offensive of the First and Third Armies had been made it was useless to attempt to advance farther across the Marne or to leave our troops on the southern bank. It seemed out of the question to withdraw the troops immediately, as the few bridges were under incessant artillery fire, and were constantly bombed or machine-gunned by enemy planes. We had to make arrangements for crossing before the retreat could even begin. On the 17th the retreat was fixed for the night between the 20th and 21st."

The last great German offensive was checked on all fronts. At this time the French system of defense was somewhat similar to that of the British heretofore described. On the front of the 4th French Army there were three zones, a forward zone, an intermediate zone and the battle zone. The forward zone was designed to break up the waves of attack and compel the waste of artillery fire; the second zone answered the same purpose; the battle zone was the zone of counter-attack. As the attacking troops struggled forward between the forward and intermediate zones in more or less disorder they were to be exposed to destructive barrage fire. General Gouraud was informed of the hour of attack by deserters and was thoroughly prepared. The German shock divisions having suffered severe loss at the forward zone and even more heavily by artillery fire in the intermediate zone was unable to conquer the intermediate position and the attack was called off about noon on the second day. In the defense of the front of the 4th French Army the 42d American division took a prominent part being moved from the reserve to the intermediate position where it resisted all attacks on its front.

South of the Marne two American divisions were engaged, the 3d and 28th. The 3d division had been on this front since the first German attack and was guarding the Marne from Chateau Thierry to the Surmelin River with its main line along the railway and its outposts near the river. On its front the troops were not withdrawn

to the second position about two miles in rear but a successful defense was made in the first line and the Germans that succeeded in crossing were soon driven back. Due to a bend in the river and the crossing of the Germans to the east, the right regiment of the division was peculiarly exposed but maintained its position against great odds.

The 28th division had been posted near Montmirail in rear of the 3d division but was employed by the French commander to strengthen his line on the right of the 3d division. Some of its companies were in the forward zone but most of the division was in the second zone some two miles south of the river where the German attack was stopped as stated by Ludendorff.

Immediately after the attack, the line south of the Marne where the Germans had crossed the river was strengthened by additional French troops and the whole placed in command of General Mitry in preparation for a counter-attack.

July Counter-Attack.—Early in July General Foch had decided to make a counter-attack as soon as the military situation became clear. When he had learned definitely that the Germans were concentrating for an attack on either side of Reims, preparations were made to launch an attack with the 10th and 6th armies as soon as it became evident that the German attack had failed. The preparations for the attack were made between the 15th and 17th and the attack was launched on the morning of July 18th. It was planned to make a great wheel to the right with the 10th and 6th armies pivoting near Chateau Thierry and cut off the retreat of the Germans south of the Marne.

In this attack tanks were employed by the French for the first time on a large scale. The tank development in France had started somewhat later than in Great Britain but on the same general lines. The first tanks constructed were heavy tanks (St. Chamond and Schneider types) and were later followed by the lighter tank (Reynault type). The heavy tanks were first employed in Nivelle's attack in 1917 and had not given complete satisfaction. It was not until after the Cambrai attack in November, 1917, that the value of the tank was universally admitted. By July, 1918, the French tank service was well developed. In this attack mustard gas shells were employed in attack by the French artillery for the first time.

In the front line of the 10th French Army between the Aisne and Ourcq were the 1st and 2d American divisions with a French division between them forming the French corps which was the center of the attack; French divisions were on either flank. To these five

divisions were assigned 6 heavy tank battalions with about 200 tanks. In reserve were British and French divisions and 3 light tank battalions with about 125 tanks. In the front line of the 6th French Army on either side of Bouresches was the 26th division; the 4th division was in reserve of the corps farther north.

On the morning of July 18 in a light fog the 10th French Army surprised the IX German Army which was not expecting an attack. Of the part taken by the 1st and 2d American divisions, General Pershing says:

"The 1st division, throughout four days of constant fighting, advanced 11 kilometers, capturing Berzy Le Sec and the height above Soissons, taking some 3,500 prisoners and 68 field guns from seven German divisions employed against it.

"The 2d division advanced 8 kilometers in 26 hours and by the end of the second day was facing Tigny, having captured 3,000 prisoners and 66 field guns."

Both divisions were then relieved by French and British divisions of the second line. Of this attack, Ludendorff says:

"After a short and sharp artillery preparation and a smoke screen, he attacked with massed infantry and a stronger force of tanks than had ever been concentrated in one place. For the first time, small, low, flat tanks that allowed the use of machine guns above the grain were used; our machine guns were hindered by it except when they were mounted on special tripods. Tanks were also observed which were used solely for the transport of men. These passed through our line, put down passengers with machine guns to form machine gun nests, and then promptly returned for reinforcements."

The left of the 6th French Army also attacked on the 18th and the attack developed towards its right where the 26th division became engaged on the 21st. A part of the 4th division became engaged on the 18th. On the night of the 20th, the Germans recrossed the Marne and began to retreat from the salient; in the meantime they rushed reinforcements to check the advance of the 10th French Army. The German plan was to hold the French north of the Ourcq in the west and north of the Ardre in the east with the IX and I armies while the VII Army retired between the two wings.

As soon as the retreat of the VII Army began, the Allied troops took up the pursuit on all faces of the salient. Due to the resistance offered by the Germans to the left wing of the 10th Army after July 24th, the original maneuver planned for the 10th and 6th armies could not be executed and these armies began to wheel to the left instead of to the right. The 26th American division being now on the marching flank instead of pivot advanced in the direction of Fismes on the Aisne and the 3d American division on its right

moved parallel to it separated by a French division. In the advance to the Vesle, the 26th division was relieved by the 42d and this in turn by the 4th division. These divisions temporarily constituted the first American corps under Maj. General Liggett. The 3d division with the 28th division and a French division formed a corps. In the advance to the Vesle, the 32d division replaced the French division and the three American divisions then formed the 3d American corps under Maj. General Bullard.

On August 3d Soissons was retaken by the 10th French Army and on the 4th of August the German Army consolidated its position along the Aisne and Vesle and stopped its retreat. The retreat had been skillfully conducted but not without severe loss,. Other fronts were weakened by withdrawing from them reserves which were essential to their safety. Ludendorff says:

"As in every other engagement, the losses we had suffered since July 15 had been very heavy. July 18 and the defensive battles arising with it had in particular been expensive, although we got our wounded back and did not lose any considerable number of prisoners.

"The losses through the battle had been so heavy that we were compelled to break up about ten divisions and use their infantry as replacements for others. The other branches, generally speaking were not broken up. Those divisions that had been withdrawn from the battle, and other troops, were distributed behind the whole western front. This was the beginning of a vast railway transportation movement. It began at the end of July and increased considerably at the beginning of August. The troops, who were very much exhausted, had to be brought up to establishments, rested, and given time to recuperate.

"The attempt to make the nations of the Entente inclined to peace before the arrival of the American reinforcements by means of German victories had failed. The energy of the army had not sufficed to deal the enemy a decisive blow before the Americans were on the spot in considerable force. It was quite clear to me that our general situation had thus become very serious.

"By the beginning of August we had stopped our attack, and had reverted to the defensive on the whole front. When the divisions that had taken part in the last attack had been rested, we should be able to make new plans. A pause in the operations was not unusual; it had occurred after the cessation of the great offensive of March 31, and again after May 27. The fighting since July 18 had been no less costly than had those attacks. The desire for rest was legitimate now as it had been then. Whether the enemy would let us have it was the question.

"Early in August I decidedly hoped that we should be able to defeat the imminent attacks and deliver counter-strokes, though on a smaller scale than heretofore. Even in critical situations we had hitherto always succeeded in discovering a strategic remedy, and I had no reason to assume that we should not do so again."

After the retreat, the left wing of the IX Army south of the Aisne was again assigned to the VII Army and the IX Army now under General Carlowitz was confined to the Oise–Aisne front. In view of a possible attack by the British and French on the front between the Aisne River on the south and Albert on the north, the IX, XVIII and II armies on this front were united into a new group under General Boehn, who had been in command of the VII Army.

For his success in driving the Germans out of the Marne salient and in thus removing all danger of an advance on Paris, General Foch was awarded the grade of Marshal of France. General Foch and the Allied commanders Generals Petain, Haig and Pershing now realized that the Germans had practically exhausted their reserves and it was advisable to keep up the offensive and prevent the recovery of their armies. General Haig says:

"The definite collapse of the ambitious offensive launched by the enemy on the 15th of July, and the striking counter-offensive south of the Aisne effected a complete change in the whole military situation. The German Army had made its effort and failed. The period of maximum strength had been passed, and the bulk of the reserves accumulated during the winter had been used up. On the other hand, the position of the Allies in regard to reserves had greatly improved. The fresh troops made available during the late spring and early summer had been incorporated and trained. The British Army was ready to take the offensive; while the American Army was growing rapidly and had already given proof of the high fighting quality of its soldiers.

"At a conference held on the 23d of July, when the success of the attack of the 18th of July was well assured, the methods by which the advantage already gained could be extended were discussed in detail. The Commander-in-Chief asked that the British, French and American armies should each prepare plans for local offensives, to be taken in hand as soon as possible, with certain definite objectives. These objectives on the British front were the disengagements of Amiens and the freeing of the Paris–Amiens railway by an attack on the Albert–Montdidier front."

While the German offensives were in progress on the French front during June and July, the British front was comparatively quiet which gave the necessary time for reorganizing the British divisions that had suffered in the March and April attacks.

Haig's Counter-Attack August 8–15.—The local offensive assigned to General Haig was designed to force back the German lines between Albert and Montdidier and for this purpose the 1st French Army was placed under his orders. His plan was to penetrate the German line between the Somme and Avre rivers and extend the attack both north and south. The opening attack between the

Somme and Avre rivers was assigned to the Australian and Canadian corps, 4 divisions each. A British corps north of the Somme and the 1st French Army to the south were to co-operate in the attack. The Australian and Canadian corps were each given 4 battalions of tanks and in rear in addition to the usual divisions of the second line was a cavalry corps to which was assigned 3 battalions of light tanks for the pursuit. The French troops were also supplied with tanks.

The opening attack was made on the left wing of the II Army but soon the XVIII Army on its left became involved in the battle. General Haig says of the attack:

"At 4:20 a. m. on the 8th of August our massed artillery opened intense fire on the whole front of attack, completely crushing the enemy's batteries, some of which never succeeded in coming into action. Simultaneously British infantry and tanks advanced to the assault. The enemy was taken completely by surprise and under cover of a heavy ground mist our first objectives * * * were gained rapidly.

"After a halt of two hours on this line, by the leading troops, infantry, cavalry and light tanks passed through and continued the advance, the different arms working in co-operation in the most admirable manner. At the close of the day's operations, our troops had completed an advance of between six and seven miles. * * * Cavalry and armored tanks were in action east of the line.

"East of the line of our advance, the enemy at nightfall was blowing up dumps in all directions, while his transports and limbers were streaming eastward toward the Somme. * * * Over 13,000 prisoners, between 300 and 400 guns and vast quantities of ammunition and stores of all kinds remained in our possession."

Ludendorff confirms the success of this attack:

"Early on August 8, in a dense fog, rendered still thicker by artificial means, the British, mainly the Australian and Canadian divisions, and the French attacked between Albert and Moreuil with strong squadrons of tanks, but otherwise in no great superiority. The divisions in line at that point allowed themselves to be completely overwhelmed. Divisional staffs were surprised in their headquarters by enemy tanks. The breach very soon extended across the Luce; the troops that were still gallantly resisting at Moreuil were rolled up. To the north, the Somme imposed a halt. Our troops north of the river had successfully parried a similar assault. The exhausted divisions that had been relieved a few days earlier, and that were resting in the region southwest of Peronne, were immediately alarmed and set in motion by the commander of the II Army. At the same time he brought forward to the breach all other available troops. The XVIII Army threw its reserves directly into the battle from the southeast and pushed other forces forward in the region northwest of Roye. The Rupprecht Army group despatched reserves thither by train. On an order from me, the IX Army, too, although itself in danger, had to contribute.

"Six or seven divisions that were quite fairly to be described as effective had been completely broken. Three or four others, together with the remnants of the battered divisions, were available for closing the broad gap between Bray and Roye.

"August 8 was the black day of the German Army in the history of the war."

In the succeeding days, the II German Army with its reinforcements was able to check the advance of the troops in its front on the old line held by the Germans from 1914 to the spring of 1917. To the south, the XVIII Army had to swing back to the same line, actively pursued by the 1st and 3d French armies.

The results and effects of the battle are given by General Haig:

"The result of the battle of Amiens may be summarized as follows. Within a space of five days, the town of Amiens and the railway centering upon it had been disengaged. Twenty German divisions had been heavily defeated by thirteen British infantry and three cavalry divisions, assisted by a regiment of the 33d American division and supported by some four hundred tanks. Nearly 22,000 prisoners and over 400 guns had been taken by us and our line pushed forward to a depth of twelve miles in a vital sector. Further our deep advance, combined with the attacks of the French armies on our right, had compelled the enemy to evacuate hurriedly a wide extent of territory south of us.

"The effect of this victory, following so closely after the Allied Victory of the Marne, upon the morale both of the German and British troops was very great. Buoyed by the hope of immediate and decisive victory, to be followed by an early and favorable peace, constantly assured that the Allied reserves were exhausted, the German soldiery suddenly found themselves attacked on two fronts and thrown back with heavy losses from large and important portions of their early gains. The reaction was inevitable and of a lasting character.

"On the other hand, our troops felt that at last their opportunity had come, and that, supported by a superior artillery and numerous tanks, they could now press forward resolutely to reap the reward of their patient, dauntless and successful defense of March and April."

After this attack, the 1st French Army was returned to General Petain.

Haig's Counter-Attack August 21–September 1.—As soon as assured of the success of his first counter-attack, General Haig decided to attack the left of the XVII German Army of the group of Prince Rupert of Bavaria west of Bapaume where its line was west of the Ancre River. His reasons were:

"The enemy did not seem to be prepared to meet an attack in this direction and owing to the success of the 4th Army, he occupied a salient the left flank of which was already threatened from the

south. A further reason for my decision was that the ground north of the Ancre River was not greatly damaged by shell fire, and was suitable for the use of tanks. A successful attack between Albert and Arras in the southeasterly direction would turn the line of the Somme south of Peronne, and gave promise of producing far-reaching results. It would be a step forward towards the strategic objective St. Quentin–Cambrai."

The opening attack was begun on the British front opposite Bapaume on August 21 and after the Germans were driven back at this point, the attack was developed all along the British and French front from the Scarpe to the Oise. By the 6th, the Germans had been driven back out of the angle between the Ancre and Somme rivers and across the battle field of the Somme drive of 1916 with a loss of 34,000 prisoners and 270 guns. The British also advanced between Bapaume and the Scarpe. Of the British tactics in these advances Ludendorff says:

"The characteristic of their tactics was narrow but deep penetration by tanks after short but extremely violent artillery preparation, combined with artificial fog. Mass attacks by tanks and artificial fog remained thereafter our most dangerous enemies. The danger increased as the morale of the troops deteriorated and as our divisions grew weaker and more exhausted. The depth of the penetration was soon known but not the length of the front attacked. Well-timed counter-attacks by reserves generally succeeded in restoring the situation. There remained the danger, however, of the local command throwing in its troops too hurriedly and piecemeal."

Petain's Counter-Attacks in August.—Between the Oise and Somme, the 1st and 3d French armies followed up the attack of August 8 making determined attacks on the XVIII Army. Ludendorff says:

"The fighting between the Somme and the Oise was still continuing in the middle of August; the center of the attack lay on both sides of Roye, which was held through severe fighting."

Between the Oise and the Aisne, General Mangin again made a brilliant attack and forced the left wing of the IX Army northward across the Oise and the center back to the Ailette about 10 miles in rear. The attack began August 18 and by the 20th the Germans were in full retreat. It was in the latter part of August that the 32d American division attached to General Mangin's 10th Army captured Juvigny north of Soissons. Of the attack Ludendorff says:

"The battle had again an unfavorable turn in spite of all our precautions; the nerves of the army had suffered. In some places the men would no longer stand a tremendous artillery barrage and tank attacks which had become still more severe. Again we suffered heavy and irreplacable losses. August 20 was another black day."

The British advance north of the Somme and the French advance south of the Oise made the position of the German line between the Somme and Oise dangerous and on August 26th, the Germans began to withdraw their troops to a new line.

German Retreat on the Somme.—"As a result of the course of events east of Albert and south of the Oise the position of the German troops between the Somme and Oise was by no means so secure as the general military situation demanded. It would be fatal to run risks at this point.

"The army groups of the Crown Prince Rupprecht and Von Boehn were therefore ordered to retire during the last days of August to the line already reconnoitered east of Bapaume — in front of Peronne—line of Somme River—in front of Ham—heights northeast of Noyon. As their reserve line the Siegfried (Hindenburg) line was now to be put in order. Von Boehn's army group had attached importance to the retention of the left bank of the Somme in front of Peronne, because from there favorable flanking movements against the area north of Peronne were possible. Between Ham and Noyon, a canal (Vesle–Noyon) which offered a good obstacle to tanks, determined the position of the line. These movements were carried through about the night of the 26th.

"The XVII Army, which had only a short wheel to perform, and the XVIII Army carried out the retirement without a hitch and in good order, and held their new positions against enemy attacks. The II Army was less fortunate, northwest of Peronne the new line failed to hold. The division to the southwest of the town let the enemy gain the left bank, thus rendering the situation very difficult for the troops on the northern bank. Again some divisions failed, putting a terrible strain on other gallant troops."—Ludendorff.

It was troops of the British 4th Army which attacked in the vicinity of Peronne. The British and French troops reached the new line about September 1st. Here the G. H. Q. of the 3d French Army was withdrawn and the 1st Army took over the French front north of the Oise. The line to which the right wing of the XVII Army retired was the Wotan or Drocourt–Queant line which the Germans had strengthened after the battle of Arras in the spring of 1917. It joined the main Siegfried or Hindenburg line near Queant a few miles south of the Arras–Cambrai road.

Haig's Counter-Attack of September 2.—On the 2d of September, troops of the 1st and 3d British armies attacked and penetrated the Wotan line on either side of the Arras–Cambrai road on a front of about 8 miles. This attack compelled the German armies as far south as the Oise to give up the last of the Amiens or Somme salient and retire to the Hindenburg line from which their March attack started.

"On September 2, a strong assault by British tanks overran obstacles and trenches in this (Wotan) line and paved the way for their infantry. Shortly after 2 o'clock in the afternoon General von Kuhl and the Chief of Staff of the XVII Army reported that it would no longer be wise to form a new line in front of the Arleaux–Moeuvres canal. They requested permission from G. H. Q. to withdraw the XVII Army to that line, while holding the position north of the Scarpe. We had to admit the necessity of the measure."—Ludendorff.

The Arleaux–Moeuvres canal or Canal du Nord ran from Arleaux on the Sensee River to Peronne; it crossed the Arras–Cambrai road about 6 miles in rear of the Wotan line and the Hindenburg line at Moeuvres. North of the Scarpe River the Wotan line was still held. A new line was established between the Scarpe and Sensee rivers. The retreat of the XVII Army exposed the right flank of the II Army.

German Retreat from Somme and Lys Salients.—"With von Boehn's army group (II, XVIII and IX armies) we had to take another important step on account of the position of the II Army, withdrawing its line and that of the XVIII Army to the Sigfried (Hindenburg) line. The IX Army, and also the right wing of the VII Army, had to conform to the movement, the latter abandoning the Vesle and taking up a position behind the Aisne, while the left wing of the same army continued to hold the Vesle to the northeast of Fismes.

"It was no easy decision to withdraw the entire front from the Scarpe to the Vesle, but it shortened our line and economized men, which, considering our huge wastage, was an advantage worth some sacrifice, notwithstanding it was shared with the enemy. Conditions were easier for the troops in and to the east of the Siegfried line, while the enemy was compelled to occupy ground rendered desolate by the withdrawal in the spring of 1917.

"The center of the XVII Army was to be withdrawn behind the Arleaux–Moeuvres canal during the night of the 3d, while in general the retirement was to be undertaken as one movement, the detailed orders being prepared by the army groups.

"In addition the long-prepared evacuation of the Lys salient by the IV and VI armies was now carried out to economize manpower.

"At the same time G. H. Q. gave orders, after consulting the commanders of the army groups, for the reconnaissance and strengthening of a new line, the Hermann line, behind the two northern groups. The line was to start on the Holland frontier east of Bruges, follow the Eccloo Canal southward to the Lys, continue upstream to the east of Courtrai, and then along the Scheldt to the southwest of Valenciennes. Further south it was to follow the Solesmes–Le Cateau–Guise line. South of Marle (on the Serre River southeast of Guise) the Hermann line joined the Hunding–Brunhild position, which, constructed in 1917, passes Sissonne to the Aisne and continued upstream along that river."—Ludendorff.

The Hermann–Hunding–Brunhild line was a canal and deep river line from the Holland frontier to the mouth of the Selle River southwest of Valenciennes. Thence it followed the Selle via Solesmes to Le Cateau and the Sambre–Oise canal to the bend of the Oise west of Guise. Thence it ran across country to the Aisne just west of Rethel and followed the Aisne and Aire rivers to Grand Pre in a gap of the Argonne Forest.

"We had a second reserve position reconnoitered, running west of the Antwerp–Brussels–Namur line, then upstream along the Meuse; this was called the Antwerp–Meuse line. The fortresses of Alsace–Lorraine were put in state of defense. Lastly orders were given that all military material not required for immediate use should be removed from the region west and south of the Hermann–Hunding–Brunhild line, while preparations were to be made for the thorough demolition of railways and roads and for putting the coal mines out of working order. Villages were not to be interfered with unless for urgent tactical reasons. Large scale evacuations to Germany were undertaken."

The British and French troops followed up the retreat between the Sensee and Oise rivers with great vigor and captured a number of strong points which the Germans attempted to hold in front of their main line between the two rivers in preparation for their attack on this formidable front.

Capture of the St. Mihiel Salient.—On the 1st of August there were 24 American combat divisions in France. Up to this time they had served in the Allied armies and not as a separate army. On August 10 the first American Army was formed and General Pershing assumed command. The task he had selected for this army was the capture of the St. Mihiel salient. For this purpose 15 American divisions were brought to this front during August and the first days of September and with four French Colonial divisions formed the army of attack. Of the attack General Pershing says:

"The reduction of the St. Mihiel salient was important, as it would prevent the enemy from interfering with traffic on the Paris–Nancy railroad by artillery fire and would free the railroad leading north through St. Mihiel to Verdun. It would also provide us with an advantageous base of departure for an attack against the Metz–Sedan railroad system, which was vital to the German armies west of Verdun, and against the Briey iron basin which was necessary for the production of German armament and munitions.

"The general plan was to make simultaneous attacks against the flanks of the salient. * * * *

"On the night of September 11, the troops of the 1st Army were deployed in position. On the southern face was the 1st corps, Maj. Gen. Liggett commanding, with the 82d, 90th, 5th and 2d divisions

in line extending from the Moselle westward. On the left was the 4th corps, Maj. Gen. Dickman commanding, with the 89th, 42d and 1st divisions. * * * * These two army corps were to deliver the principal attack, the line pivoting on the center division of the 1st corps. The 1st division on the left of the 4th corps was charged with the double mission of covering its own left flank, while advancing some 20 kilometers due north toward the heart of the salient where it was to make contact with the troops of the 5th corps.

"On the west face of the salient lay the 5th corps, Maj. Gen. George H. Cameron commanding, with the 26th division, the French Colonial division and the 4th division in line. Of these three divisions, the 26th alone was to make a deep advance directly southeast. * * * In the center was the 2d French Colonial corps of three small divisions. * * * These troops were to follow up the retirement of the enemy from the tip of the salient.

"The French independent air force was at my disposal which together with the British bombing squadrons and our own air force, gave the largest assembly of aviation that had been engaged in one operation.

"At dawn, of September 12, after four hours of violent artillery fire of preparation and accompanied by small tanks, the infantry of the 1st and 4th corps advanced. The infantry of the 5th corps commenced its advance at 8 a. m. The operation was carried out with entire precision. Just after daylight on September 13, elements of the 1st and 26th divisions made a junction at Hattonchatel and Vigneulles, 18 kilometers northeast of St. Mihiel. The rapidity with which our divisions advanced overwhelmed the enemy and all objectives were reached by the afternoon of September 13. The enemy had apparently started to withdraw some of his troops from the tip of the salient on the eve of our attack, but had been unable to carry it through. We captured nearly 16,000 prisoners, 443 guns, and large stores of material and supplies. The energy and swiftness with which the operation was carried out enabled us to smother opposition to such an extent that we suffered less than 7,000 casualties during the actual period of advance.

"During the next few days, the right of our line west of the Moselle River was advanced beyond the objective laid down in the original order. This completed the operation for the time being and the line was stabilized to be held by the smallest practicable force. * * * The strength of the 1st Army in this battle totaled 500,000 men, of whom 70,000 were French."

When the St. Mihiel attack was made, the German line from the Argonne to the Moselle was held by an army group consisting of the V Army and Army Detachment C, both under the command of General Gallwitz. On the Lorraine front east of the Moselle was the XIX Army under Prince Albert of Wurtemburg. The 2d French Army held Verdun and the line west of it to the Argonne. General Pershing's attack was made on Army Detachment C. Of this attack Ludendorff says:

"In front of Von Gallwitz's army group, between St. Mihil and the Moselle much movement had been noticed as early as the end of August, and an American offensive seemed probable there. G. H. Q. pushed up reserves. I discussed with the Chief of Staff of the army group and of Army Detachment C, which was exposed to attack, the evacuation of the salient, which had long ago been planned and prepared. Local commanders were confident in spite of my demur. G. H. Q. was reluctant to evacuate the salient, on account of the industrial centers lying behind it, and, unfortunately, did not order the step until September 8. At the same time, the southern front of Detachment C was to increase its distance from the enemy, much as had been the case with the XVII Army in August. Advance guards only were to be left in the foremost trenches.

"The work of evacuation had not been carried very far when, on September 12, the attack developed between the Rupt and Moselle, accompanied by a secondary offensive movement against the northern end of the salient on the Combres heights. The enemy penetrated our line in both places. On the southern sector he broke through a Prussian division, and the reserves were not close enough to restore the position immediately. On the Combres heights there was an Austrian division that might have fought better. As early as noon the local G. H. Q. ordered the evacuation of the salient. I was dissatisfied with myself but also with the local command. The earlier reports indicated that the evacuating was proceeding satisfactorily, this being facilitated by the enemy not following up. I found my official communique, which turned out later to be too favorable, on these reports.

"On the Woevre plain the evacuation of the salient was carried through, though with heavy losses, and the Michel position was occupied. The fighting was dying out by the 13th. According to reports that reached me, the continuation of the offensive against the Michel position seemed probable. After the 22d the situation changed in front of Von Gallwitz's group. The likelihood of an offensive here diminished and a battle on both sides of the Argonne seemed probable."

The Michel line ran along the base of the St. Mihiel salient and was prepared during 1917 to provide for a withdrawal from the salient.

While General Pershing was engaged in his attack on the St. Mihiel salient with the 1st, 4th and 5th American corps, the 2d corps, General Read, 27th and 30th divisions, was with the 4th British Army, and the 3d corps, General Bullard, 28th, 32d and 77th divisions, was with the 5th and 10th French armies.

The Final Campaign.—In the counter-offensive operations above described beginning July 18, the Allies had met with unexpected success and had captured about 100,000 prisoners and about 1,300 guns. It was evident that the German Army had passed its zenith

in morale and reserves and could no longer withstand the attacks of the Allies. The time had come for substituting for operations with limited objectives, strategic operations on a grand scale whose aim was to free France and Belgium of the German armies. Operations on the St. Mihiel front were therefore suspended and preparations were made by all the Allied armies for what proved to be the final campaign.

The plan finally adopted provided for three simultaneous offensive operations on widely separated sectors and constant pressure on the intermediate parts of the German line to prevent the shifting of troops along the line. In the north, between the Channel and the Lys River, the offensive operations were to be undertaken by the Belgian Army, the 6th French Army and the left wing of the 2d British Army. Their aim was to drive the Germans out of the territory between the Channel and the Lys, clear the Belgian coast and threaten the rear of the German line between the Lys and Sensee rivers. Between the Sensee and Oise rivers the British and French armies were to break through the Hindenburg line and advance in the direction of Mons–Maubeuge–Hirson threatening the rear of the German line between the Sensee and the Lys and secure possession of all the railways running from northern Belgium down to the Aisne front. The American Army was to leave a sufficient force to hold the St. Mihiel salient and with the remaining available troops relieve the 2d French Army along its line extending from the west of the Argonne to the Meuse River. When this army was in position, it and the 4th French Army between Reims and the Argonne, were to attack the I, III, and V German armies and press northward in order to seize the railway running through Mezieres and Sedan which was the principal line of supply of the German armies on the Aisne front. If any one of these offensives met with success, it would compel the retreat of the Germans on a wide front. Between these main offensive sectors, the Allied troops were to attack whenever there was any sign of weakening in their front.

The general situation on the other fronts was even more satisfactory. On the Salonika front, the Allies began an offensive on September 15 and at this time the Bulgarian armies were in full retreat and the government was suing for peace. In Palestine, General Allenby began an offensive on September 19, and at this time he had captured or dispersed all the Turkish forces opposed to him. The Italian Army had been thoroughly reorganized and it was directed to assume the offensive at the same time as the offensive on the west front as it was known that the Austrian Army had been greatly

demoralized by the retreat of the German armies and the situation in Bulgaria; the latter released the Allied Army of Salonika which might be expected on the Danube.

At this time, the German G. H. Q. had so little confidence in its ability to continue the struggle that on September 28 General Hindenburg and General Ludendorff requested the German government to seek an armistice before the situation became more hopeless.

Offensive in Flanders.—For the operations in Flanders the Belgian Army, the 6th French Army and the left wing of the 2d British Army north of the Lys River were placed under the orders of the King of Belgium. In their front was the IV German Army which was holding practically the same line it held before the Messines–Passchendale campaign of 1917. The army had however been greatly reduced in strength due to its desperate attacks in April and May, 1918, and to the withdrawal of troops to reinforce the broken lines farther south. As a result, when the Allies attacked on the 28th of September between Dixmuide and the Lys River, they advanced farther in five days than they had in five months in 1917. In the first phase of the operations the Germans were driven back off the ridge they occupied into the low ground on the line Dixmuide–Roulers–Menin.

The Allies in this sector spent two weeks in preparing roads over the old battlefield and in preparing for their next attack. This took place on October 14 and on the 17th the IV German Army was directed to evacuate the Belgian coast and fall back slowly to the Herman line along the Eccloo canal and the Lys River below Courtrai. The Allied troops followed up the retreat. On the approach of the Allies the right wing of the IV Army retired across the Scheldt and the Belgians were in Ghent when the armistice took effect November 11. The 6th French Army was reinforced on the east bank of the Lys River by the 27th and 91st American divisions in the latter part of October and between October 31 and November 2 these divisions drove the Germans across the Scheldt in the vicinity of Oudenarde. After a few days' rest they were ordered to carry the attack beyond the Scheldt on November 11 but because of the armistice the attack did not take place. South of the 6th French Army, the 2d British Army reached the line Oudenarde–Mons on November 11.

The Cambrai–St. Quentin Offensive.—From the Sensee River to a point two miles south of the Cambrai–Bapaume road, the German front was along the Canal du Nord. This canal was dry. It varied

in width from 36 to 50 feet and was 12 feet deep with steep slopes at many points. It formed a serious obstacle to tanks which was the main reason why it was adopted as the line of defense. From the end of the canal line, the Hindenburg line ran southeastward to the St. Quentin Canal; it consisted of the same trench lines that were captured by the British in the Cambrai attack of November, 1917. This sector was held by the left of the XVII Army and the right of the II Army. In rear of this line was a strong second position consisting of the Scheldt River north of Cambrai and the St. Quentin Canal south of Cambrai. At Cambrai itself this second line was about eight miles in rear of the first. Along this sector was the 1st British Army astride the Cambrai–Arras road and on its right the 3d Army extended the line almost to the St. Quentin Canal.

In his attack on the Hindenburg line General Haig decided to make his first attack in the sector described, as the German artillery on the line between the Canal du Nord and the St. Quentin Canal enfiladed the front farther south in front of the 4th British Army where the main attack was to be delivered.

On the night of September 26–27 the artillery preparation began all along the front from the Scarpe to the Oise on the British and French fronts and at 5:20 a. m. on the 27th, the 1st and 3d British armies launched their attack accompanied by a strong force of tanks. The Canal du Nord was captured that day with some 10,000 prisoners and the Germans were compelled to fall back to their second position behind the Scheldt River and St. Quentin Canal.

The Hindenburg line in front of the 4th British Army is described by General Haig as follows:

"Between St. Quentin and the village of Bantouselle (about 16 niles north of St. Quentin), the principal defenses of the Hindenburg system lie sometimes to the west, but more generally to the east of the line of the Scheldt (St. Quentin) Canal.

"The canal itself does not appear to have been organized as the enemy's main line of resistance, but rather as an integral part of the deep offensive system, the outstanding characteristics of which was the skill with which it was sited so as to deny us effective artillery positions from which to attack it. The chief roll of the canal was that of affording cover to resting troops and to the garrisons of the main defensive trench lines during the bombardment. To this end the canal lent itself admirably, and the fullest use was made by the enemy of its possibilities.

"The general configuration of the ground through which this sector of the canal runs produces deep cuttings of a depth in places of some sixty feet, while between Bellicourt and the neighborhood of Vendhuille the canal passes through a tunnel for a distance of 6,000 yards. In the sides of the cuttings the enemy had constructed

numerous tunneled dugouts and concrete shelters. Along the top edge of them he had concealed well sited concrete or armored machine gun emplacements. The tunnel itself was used to provide living accommodations for troops, and was connected by shafts with the trenches above. South of Bellicourt the canal cutting gradually became shallow till at Bellinglise the canal lies almost at ground level. South of Bellinglise the canal is dry.

"On the western side of the canal south of Bellicourt two thoroughly organized and extremely heavily wired lines of continuous trench run roughly parallel to the canal, at average distances from it of 2,000 and 1,000 yards respectively. Except in the tunnel sector the double line of trenches known as the Hindenburg line proper lies immediately east of the canal, and is linked up by numerous communication trenches with the trench lines west of it.

"Besides these main features, numerous other trench lines, switch trenches and communication trenches, for the most part heavily wired, had been constructed at various points to meet local weaknesses or to take advantage of local command of fire. At a distance of about 4,000 yards behind the most easterly of these trench lines lies a second double line of trenches known as the Beaurevoir–Fonsomme line, very thoroughly wired and holding numerous concrete shelters and machine gun emplacements. The whole series of defenses, with the numerous defended villages contained in it, formed a belt of country varying from 7,000 to 10,000 yards in depth, organized by the employment of every available means into a most powerful system, well meriting the reputation attached to it."

Because of the strength of the position, the bombardment commenced on the night of September 26–27 was kept up until the morning of the 29th when at 5:50 a. m. the attack of the 4th British Army was launched. The attack of the tunnel sector was assigned to the 2d American corps, the 27th and 30th divisions, supported by three Australian divisions; a British corps attacked on either side of the American corps. According to the plan of attack, the American divisions were to capture the Hindenburg trenches at the tunnel and hold them while the Australian divisions passed through to objectives beyond. This part of the plan could not be executed as the 30th division alone was able to cross the tunnel line; the 27th division met with such strong resistance that it was held up at the village of Bony west of the tunnel. The greatest success was secured by the British 9th corps on the right which succeeded in crossing the canal and reached the villages some distance beyond. Of the part taken by the American divisions General Haig says:

"North of Bellenglise (captured by the British 9th corps), the 30th American division (Major General E. M. Lewis) having broken through the deep defenses of the Hindenburg line stormed Bellicourt and seized Nauroy. On their left, the 27th American division

(Major General J. F. O'Ryan) met with very heavy enfilade fire, but pressed with great gallantry as far as Bony, where a bitter struggle took place for the possession of the village.

"Fighting on the whole front of the II American corps was severe, and in Bellicourt, Nauroy, Gillemont Farm, and at a number of other points amid the intricate defenses of the Hindenburg Line, strong bodies of the enemy held out with great obstinacy for many hours."

During this attack the British forces in the Cambrai sector and the 1st French Army on the right were also engaged.

On the night of the 29th the American troops were withdrawn and on the entire front, from the Sensee River to the Oise, the Allies advanced steadily but slowly until the night of the 9th of October when the Germans gave up the struggle and began their retirement to the Hermann line and the line of the Oise River. In the operations on this front from the opening attack to the German retreat, the British captured 36,000 prisoners and 380 guns.

Of these operations General Ludendorff says:

"The XVII Army had to undergo a difficult time after the enemy break-through at Cambrai on September 27. Up to October 8 there were violent battles with varying fortunes on both sides of Cambrai but we succeeded in holding the town. The II Army was not so successful being pressed farther and farther back on Catelet (on east side of St. Quentin Canal midway between Cambrai and St. Quentin) in the early days of October. Toward Bohain (northeast of St. Quentin) the enemy gained ground. The right wing of the XVIII Army, which was also engaged in heavy fighting (with the 1st French Army) was affected by this loss. On October 8, it (II Army) met another heavy blow in the neighborhood of Le Catelet and southward therefrom which it repulsed. In the night of October 9 we were compelled to withdraw the II Army into the Hermann line, as there were no reserves to aid it. To conform to this movement the XVII Army had to move its left wing and center back to a line midway between Cambrai and Valenciennes, the right wing for the present being posted immediately west of Douai. The XVIII Army had, like the II Army to fall back to the Hermann line. Its left remained at La Fere (on the Oise).

"The decision that the II and XVIII Armies should occupy the Hermann line, whose construction was but little advanced, was a great disappointment to us. I had hoped that the Siegfried line would have held for much longer. Already in the fighting at the beginning of October to the north of St. Quentin we had been gradually forced out of the position at many spots, but we had, generally speaking, kept the line. We had not even completed the evacuation of the ground in front of the Hermann line.

"The retirements were carried out smoothly. On the 10th the enemy had already attacked the new positions and was beaten off. On the 11th, to the northeast of Cambrai, he had a local success

against the XVII Army, which was prevented from extending. During the days following up to the 17th there was new fighting on the front of the II and XVIII armies, which, on the whole, were successful for us."

Retreat of the Germans Between the Oise and Reims.—Between the Oise and Reims the IX and VII German armies were facing the 10th and 5th French armies. The 5th French Army was now under General Guillaumat as General Bertholet had been sent to Salonika. On this front, the Germans began to retreat in the latter part of September.

"The necessity for economizing forces had hastened the German Crown Prince's group to abandon the Laffaux salient which had caused so many losses, and withdraw to the position behind the Oise–Aisne canal (in the valley of the Ailette River) which had been occupied after the disasterous engagements of October 22, 1917.

"On October 2, as had been arranged, the left wing of the VII and the right wing of the I Army fell back to the position from which the attack of May 27, 1918, had started. Unfortunately, before this movement was carried out one division was, in a wholly unexpected manner, crushed on the heights north of Fismes. The center of the VII Army held the Chemin des Dames firmly in the face of many attacks."—Ludendorff.

However the German forces did not remain long on this front as the Allied thrust farther east of the 4th French Army made it impossible to do so.

"The continued and violent assaults on the left wing of the I and on the III Army caused the army group of the Crown Prince to decide in the early days of October to break off the fight and to withdraw all the troops to the Hunding–Brunhild line. General Headquarters was unable to give this group, which husbanded its men carefully, any new troops. It approved the proposal which was carried out as arranged in the days ending with October 13.

"The army group of the German Crown Prince began in the early days of October to withdraw the troops before Reims behind the Suippe. In the night of the 10th the whole front from the Chemin des Dames to the Argonne was, after strong attacks, beaten off by the III Army. By the morning of October 13, the VII, III and I armies stood ready for defensive in their new and well constructed line and the evacuation of the ground had been almost completed."—Ludendorff.

The retreat of the Germans between the Oise and Reims was followed by the advance of the 10th and 5th French armies and on October 12, the French entered Laon. This compelled the XVIII Army to retreat from the Oise between Guise and La Fere and permitted the 1st French Army to cross the Oise, connect with the 10th Army and advance in the general direction of Hirson.

Attack on the Hermann Line.—When the Germans retreated to the Hermann line the armies were regrouped. The IV, VI, XVII and II armies again became the group of the German Crown Prince. The IX Army was absorbed by the VII. In the French armies, General Mangin's G. H. Q. was replaced by that of General Humbert of the 3d Army and General Mangin was detached to organize a new offensive in Lorraine. The 1st and 3d armies constituted a group under General Fayolle and the 5th and 4th constituted a group under General Maistre.

On October 17, the 4th British and 1st French armies broke the Hermann line in their front and on the 20th, the 1st and 3d British armies forced it farther north. The final battle on this front took place on November 4 with the Germans on the line Conde–Guise after which they began to retreat toward the Antwerp–Meuse line. When the armistice of November 11 took effect the center of the British front was at Mons where the Expeditionary Force had fought its first battle in 1914. The 3d and 4th British armies with the 1st and 3d French armies were on the Belgian frontier with their right at Rocroi.

German Retreat Between the Lys and Sensee Rivers.—The last front from which the Germans retired was that held by the VI Army west of Lille and the right of the XVII Army west of Douai where they were facing the right wing of the 2d British Army, the 5th Army now under General Broadwood, and the left of the 1st Army.

"As a result of the withdrawal of the IV Army behind the Lys, we were now compelled to withdraw the VI and XVII armies into the Hermann line behind the Scheldt. On the 17th of October, the VI Army was still west of Lille, and was to evacuate that town on the 18th; farther south the right wing of the XVIII and later the whole of that army had to conform to the movement."—Ludendorff.

By the morning of the armistice the opposing armies in this sector were on the general front of the armies to the north and south.

The Champagne–Meuse Offensive.—The offensive of the 4th French and American Army on the front extending from the Reims–Rethel road to the Meuse River was a renewal of the great French offensive of October, 1915, on a much wider front and with a much larger force than was available in 1915. Its ultimate objective was the railway running along the Belgian frontier from Luxemburg and Metz to Mezieres and thence to Rethel and Laon.

"The strategical importance of this portion of the line was second to none on the western front. All supplies and evacuations of the German armies in northern France were dependent upon two

great railway systems—one in the north passing through Liege, while the other in the south with lines coming from Luxemburg, Thionville and Metz, had as its vital section the line Carignan–Sedan–Mezieres. No other important lines were available to the enemy, as the mountainous masses of the Ardennes made the construction of east and west lines through that region impracticable. The Carignan–Sedan–Mezieres line was essential to the Germans for the rapid strategical movement of troops. Should this southern system be cut by the Allies before the enemy could withdraw his forces through the narrow neck between Mezieres and the Dutch frontier, the ruin of his armies in France and Belgium would be complete."—Pershing's Report.

The definite decision to employ the American Army in cooperation with the 4th French Army on this front was decided on September 2 at a conference of Generals Foch, Petain and Pershing and preparations for taking over the front from the Argonne to the Meuse by American troops was made in conjunction with the attack on the Mihiel salient.

"The choice between the two sectors, that east of the Aisne including the Argonne Forest or the Champagne sector was left to me. In my opinion no other Allied troops had the morale or the offensive spirit to overcome successfully the difficulties to be met in the Meuse–Argonne sector and our plans and installations had been prepared for an expansion of operations in that direction. So the Meuse–Argonne sector was chosen. The entire sector of 150 kilometers of front extending from Port sur Seille east of the Moselle west to include the Argonne Forest was accordingly placed under my command including all the French divisions then in that zone. The First American Army was to proceed with the St. Mihiel operation after which the operation between the Meuse and the western edge of the Argonne Forest was to be prepared and launched not later than September 25.

"When the First American Army became engaged in the simultaneous preparation for two major operations, an interval of 14 days separated the initiation of the two attacks. During this short period the movement of the immense number of troops and the amount of supplies involved in the Meuse–Argonne battle over the few roads available and confined entirely to the hours of darkness was one of the most delicate and difficult problems of the war. The concentration included 15 divisions of which 7 were involved in the pending St. Mihiel drive, 3 were in sectors in the Vosges, 3 in the neighborhood of Soissons, 1 in a training area and 1 near Bar le Duc. Practically all the artillery, aviation and other auxiliaries to be employed in the new operations were committed to the St. Mihiel attack and therefore could not be moved until the success was assured. The concentration of all units not to be used at St. Mihiel was commenced immediately and on September 13, the second day of St. Mihiel, reserve divisions and army artillery units were withdrawn and placed in motion toward the Argonne front.

"That part of the American sector from Fresnes en Woevre southeast of Verdun to the western edge of the Argonne Forest, while nominally under my control did not actively become a part of my command until September 22 on which date my headquarters were established at Souilly, southwest of Verdun. Of French troops, in addition to the 2d French Colonial corps composed of 3 divisions, there was also the 17th French Corps of 3 divisions holding the front north and east of Verdun."—Pershing.

The front of the 4th French Army which was to attack west of the Argonne extended from that ridge as far west as the Reims–Rethel road. In front of General Gouraud was the left wing of the I German Army, General Mudra, and the entire III German Army, General Einem. The Germans held practically the line that was stabilized after the attack of October, 1915, and from which they had launched their attack of July 15, 1918. The position had been greatly strengthened during the long period of occupation and consisted of a forward zone only lightly held as was customary at that time with a much stronger position in rear. For the attack General Gouraud had at his disposal six army corps and a powerful force of artillery.

The offensive front of the American Army extended from the western limit of the Argonne to the Meuse River. This part of the German line was held by the V Army. In the Argonne the front occupied by the Germans was that reached in the spring of 1915. Between the Argonne and the Meuse it was the front held by the Germans in 1914 and 1915 and from which the attack on the west side of the Meuse was made in 1916 in the attack on Verdun, and to which the Germans were compelled to retire when the French counter-attacked in August, 1917. The outpost line ran roughly from the mouth of Forges Creek on the Meuse to Boureuilles on the Aire River south of Varennes. Due to the importance of this front it had been elaborately fortified during the long period of occupation and consisted generally of two zones of defense. The forward zone extended back to Montfaucon and consisted of a number of organized lines and switch lines covering this deep zone. Some distance in rear was the rear zone called the Kriemhilde position or line with its left resting on the Meuse and its right on the Argonne north of Grand Pre.

"In addition to the artificial defenses, the enemy was greatly aided by the natural features of the terrain. East of the Meuse the dominating heights not only protected his left but gave him position from which his powerful artillery could deliver an oblique fire on the western bank. Batteries located in the elaborately fortified Argonne Forest covered his right flank and could cross their fire

with that of the guns on the east bank of the Meuse. Midway between the Meuse and the Forest, the heights of Montfaucon offered perfect observation and formed a strong natural position which had been heavily fortified. The east and west ridges abutting on the Meuse and Aire River valleys afforded excellent machine gun positions for the desperate defense which the importance of the position required him to make. North of Montfaucon densely wooded and rugged heights constituted natural features favorable to defensive fighting."—Pershing.

The great advantage which the Germans had in the defense of this sector was the thorough knowledge of all its features for defense acquired during the long occupation; unlike the Allies on other fronts, the American officers had little opportunity to become acquainted with the terrain and were obliged to rely on the French for information as to the nature of the terrain and its defensive system. As was usual at this stage of the war, the Germans held their front zone lightly and depended on their rear zone and counter-attacks for their main defense.

For the opening attack in the American sector, General Pershing employed three corps:

Left—1st Corps	*Center—5th Corps*	*Right—3d Corps*
General Liggett	General Cameron	General Bullard
77th, 28th, 35th divs.	91st, 37th, 79th divs.	4th, 80th, 33d divs.
Reserve 1st div.	Reserve 3d div.	Reserve 32d div.

General Reserve 29th, 82d and 92d divs.

"About 2,700 guns, 189 small tanks, 142 manned by Americans, and 821 airplanes, 604 manned by Americans, were concentrated to support the infantry. We thus had a superiority in guns and aviation and the enemy had no tanks."—Pershing.

Generals Gouraud and Pershing hoped that the offensive on either side of the Argonne could be continued without intermission after the jump-off until the two armies joined their flanks in the vicinity of Grand Pre. This would compel the Germans to evacuate the Argonne which was to be taken over by the 77th division. Neither army was able to accomplish this feat but both were temporarily held by the second German position.

First Phase.—The preliminary bombardment began at 11 p. m. on September 25 and at 5:30 a. m. September 26 the infantry attack was launched. As a result of the preparation, the American Army advanced on an average of about 4 miles the first day, capturing 5,000 prisoners and almost the entire forward zone of the German defense system. The occupation of the first zone was completed on the 29th; it was realized that the advance could not be continued without further preparation.

"The critical problem during the first few days of the battle was the restoration of communications over 'no man's land'. There were but few roads available across this deep zone and the violent artillery fire of the previous period of the war had virtually destroyed them. The spongy soil and the lack of materials increased the difficulty, but the splendid work of our engineers and pioneers soon made possible the movement of the troops, artillery and supplies most needed. By the afternoon of the 27th all the divisional artillery except a few batteries of heavy guns, had effected a passage and was supporting the infantry section."—Pershing.

On the nights of the 29th and 30th, the three divisions in the corps reserves relieved three of the most exhausted divisions of the first line and preparations were made for a new general attack.

"We were no longer engaged in a maneuver for the pinching out of a salient (the Argonne) but were necessarily committed, generally speaking, to a direct frontal attack against strong hostile positions fully manned by a determined enemy."—Pershing.

West of the Argonne, the 4th French Army had also captured the forward zone of defense and was held up by the second or reserve position.

As previously stated, the effect of the first attack of the 4th French and American armies was the withdrawal of the entire German line between the Oise and Reims to the line occupied by the Germans before their Marne offensive.

Second Phase.—The second phase of the Meuse–Argonne offensive covered the period from October 4 to October 31st and resulted in the penetration of the Kriemhilde position upon which the Germans relied for their main defense. It was begun on October 4 in a general attack on the southern limit of the Kriemhilde position.

ATTACKING DIVISIONS.

1st Corps	*5th Corps*	*3d Corps*
77th, 28th and 1st	32d and 3d	80th and 4th

"Of all the Meuse–Argonne fighting, the second phase was the hardest and the fighting there between October 4 and 14 was the hardest which the American Army encountered during the war. The terrain was almost insurmountable. Between the Argonne Forest and the Meuse River, a distance of 15 miles, the First American Army had in line October 4, from the Meuse River west toward the forest, the 33d division (facing along the river), 4th, 80th, 3d, 32d, 1st, 28th, and 77th divisions (the latter in the forest). The American front stretched in a straight line from Brieulles on the Meuse to Apremont on the Aire. In front of it lay the Kriemhilde Stellung, the last of the German lines in this sector. It was ideally sited for defense. . . . .

"The Germans were not holding a line of trenches but instead their line of defense was merely a host of machine guns hidden under cover of the plentiful small woods and defiles. For this reason it was practically impossible to determine in so short a time the exact location of these positions, and consequently any artillery preparation before the attack would be futile. All the available guns of the Army, however, were ordered into simultaneous action for the rolling barrage which was to protect the attacking troops, and at 5:30 a. m. on October 4 the quiet of the early morning was blasted and the assault began."—The History of the A. E. F.

The assault met with strong resistance and in general little progress was made except in the Aire valley on the front of the 1st division. This was followed by a series of more or less local actions lasting until the 12th during which the Americans reached the rear zone of the Kriemhilde position upon which a general attack was ordered on the 14th.

On October 3, General Gouraud launched his second attack against the second and last defensive German position north of Somme Py creek in which the 2d American division, which had been assigned to his army, took a prominent part. The objective of the 2d division was the Blanc Mont ridge astride the road running northwest from Somme Py and the key-point of the German position. The division was supported by two battalions of French tanks. The position was taken in a four-day attack in which the Germans made desperate attempts to hold this line and recapture it by counter-attack. As a result of this attack and the advance of the French troops on either side, the Germans lost their last defensive position in Champagne and retired from the entire front between Reims and the Argonne; on October 13 the 4th French Army reached the Aisne and Aire west of Grand Pre. The Germans in the Argonne therefore retired northward to the vicinity of Grand Pre. In the pursuit the 36th American division relieved the 2d division.

Of the situation at this time Ludendorff says:

"The continued and violent assaults on the left wing of the I Army and on the III Army caused the Army group of the Crown Prince to decide in the early days of October to break off the fight and to withdraw all the troops to the Hunding–Brunhild line, i. e., midway between Laon and Marle–Sissonne–Aisne River from Rethel upstream to Grand Pre. . . . .

"The army group of the German Crown Prince began in the early days of October to withdraw the troops in front of Reims behind the Suippe. In the night of the 10th the whole front from the Chemin des Dames to the Argonne was given up after strong attacks were beaten off by the III Army. By the morning of October 13, the VII, I and III armies stood ready for defensive fighting in their new and well constructed line and the evacuation of the ground in front thereof had been almost completed. . . . .

"The enemy followed up the retirement of the German Crown Prince's group energetically between the Oise and Aisne (10th and 5th French armies) and heavy fighting soon developed round our new positions. In the bend of the Aisne toward Rethel the enemy advanced more cautiously. On the other hand he soon attempted, at first without success, to capture the Vouziers–Grand Pre bend of the Aisne. In the Aire valley, west of the Meuse, the American pressure against our V Army (1st American division) was unusually severe."

During the second phase of the attack General Pershing extended his offensive front to include the Cote de Meuse or high plateau on the east bank of the Meuse in order to prevent German troops from being sent from this sector across the Meuse to assist in the defense of their main front, and also to silence the batteries on that bank. For this attack which began on October 8, the 29th and 33d divisions were attached to the 17th French corps occupying the lines to the north and east of Verdun.

Although the German armies west of the Argonne had been obliged to retreat the V German Army now under General Marwitz was reinforced and stubbornly held on in what was left of the Kriemhilde line. The situation about the time the 4th French Army reached the Aisne is given as follows:

"Throughout the entire front west of the Meuse the First American Army lay facing the last line of the Kriemhilde Stellung. This consisted for the most part in a single trench system, protected by a heavy series of belts of barbed wire. In itself this would have been but a slight obstacle, but this line was supported by a line of wooded crests and the whole so thickly sewn with machine guns and artillery that it presented a formidable obstacle to assault. Held as it was by determined German infantry and machine gunners, supported by ample excellent artillery, special preparations had to be made by the First American Army to insure success in the attack. These consisted mainly in placing fresh divisions in the line and the regrouping of those divisions that were to remain over so as to give the maximum force on the strongly held lines. Then, too, artillery ammunition had to be moved forward, and all these operations consumed the 12th and 13th of October."

ATTACKING DIVISIONS.

1st Corps	*5th Corps*	*3d Corps*
77th, 82d and 42d	32d and 3d	5th and 4th

At this time the German line ran from Brieulles on the Meuse through Romagne to Grand Pre. On the morning of October 14th the principal attack was to be made. The 5th, 32d and 42d divisions were to break through the center of the German front. On the extreme left the 82d and 77th divisions were to take part in the attack.

Romagne was taken by the 32d division and the other divisions made some progress but the German line was not broken and the general attack was again followed by more or less local actions to straighten out the line preparatory to a general attack. For this attack several new divisions were brought to the attacking line. On the east bank of the Meuse the Germans were slowly driven back; on this front the 26th division relieved a French division.

About the middle of the second phase, the American Army was divided by General Pershing into the 1st and 2d armies. General Liggett was assigned to the command of the 1st Army and the front from the Argonne to Fresnes en Woevre; General Bullard was assigned to the command of the 2d Army and the front from Fresnes to the Moselle. The corps commanders of the 1st, 3d, 4th and 5th corps were now Generals Dickman, Hines, Summerall and Muir.

Last Phase and Pursuit.—"On the 21st my instructions were issued to the First Army to prepare thoroughly for a general attack October 28 that would be decisive if possible. In order that the attack of the First Army and that of the 4th French Army on its left should be simultaneous our attack was delayed until November 1.

"On this occasion and for the first time the Army prepared for its attack under normal conditions. We held the front of attack and were not under the necessity of taking over a new front with its manifold installations and services. Our own personnel handled the communications, dumps, telegraph lines, and water service; our divisions were either on the line or close in rear; the French artillery, aviation and technical troops which had previously made up our deficiencies had been largely replaced by our own organizations; and our army, corps and divisional staffs were by actual experience second to none."—Pershing.

On the morning of November 1, the attacking line of the First Army was

Left—1st Corps	*Center—5th Corps*	*Right—3d Corps*
General Dickman	General Summerall	General Hines
78th, 77th and 80th divs.	2d and 89th divs.	90th and 5th divs.

East of the Meuse

French Colonial Corps including the 26th, 79th and 81st divs.

During the last days of October the position of the Germans had become hopeless as the Austrian armies had been decisively beaten in Italy and the government was suing for peace, revolutions had broken out in Germany and on October 28 the Emperor abdicated. General Hindenburg was now at the head of the army which he was trying to save from utter defeat in order to secure the best terms in the armistice for which the government had been forced to plead

on October 6. On the American front west of the Meuse toward the end of October the German V Army began to withdraw to the Meuse leaving only strong rear guards in its intrenched positions.

"On the night of October 31, there were no indications on the front of the First American Army that the Germans were about to retire along the whole front. The slightest attempt to advance, each patrol, encountered a sharp fire.

"On the morning of November 1, the final attack began. Following the most dense protective barrage that had ever been put down on the front of the American Army, the seven divisions moved forward to the attack. For the first hour the German resistance was bitter and then suddenly weakened, and it was found that the Germans had retreated leaving but a strong rearguard to check the assault. There were small local attacks which in some cases became sanguinary encounters but for the most part the pursuit was pushed with great vigor by the veteran American divisions. Each day was marked by large advances by the Americans. . . . During these eleven days (November 1 to 11) the enemy of necessity fought a rear guard action. The resistance on a certain line would be stiff in the afternoon, but the next morning it would be found that the line had been withdrawn during the night. It was one of the most skilfully executed retreats in all history, for it cost the Allies dearly to attack those rearguards without their strong artillery supports, but it also cost the Germans much in materials which in their haste they were forced to leave behind."—History of the A. E. F.

As soon as it was discovered that the Germans were retreating the American forces took up the pursuit and the offensive was extended to the east bank of the Meuse. When the 1st Army was halted by the armistice, November 11, it was across the Meuse above Sedan and in possession of all the plateau on the east bank of the Meuse above Verdun. On its left the 4th French Army occupied Sedan and Mezieres and the 5th and 3d French armies extended the line to Hirson via Rocroi.

The task assigned to General Bullard's 2d American Army was to make the necessary preparations to take part in a great offensive movement which General Foch had directed General Castelnau to organize for an invasion of Lorraine on the general front from which the offensive of the 1st and 2d French armies was made in August, 1914. General Mangin was in command of the French contingent which formed the 10th Army. The 2d American Army consisted of the 4th American corps, General Muir, the 6th American corps, General Menoher, and the 17th French corps; each corps had four divisions. The American divisions on this front were the 33d, 28th, 7th and 92d in the front line and the 88th, 4th, 35th and 62d in reserve. The 2d American Army was to begin the offensive by an attack on the Verdun–Moselle front on November 10th. The at-

tack on November 10 was made in conjunction with the right of the 1st Army north of Fresnes where the 81st division was employed. Satisfactory progress was made when the armistice stopped operations on the 11th.

On Armistice Day, 42 American divisions had either reached France or were en route; of these 29, including replacements from the other divisions, were actually engaged in combat. Of the latter 7 were Regular divisions, 11 National Guard divisions, and 11 were National Army divisions. The total American forces sent to France is given as 2,084,000 of whom it is estimated that 1,390,000 took part in campaign; of the latter 1,100,000 as divisional troops 240,000 as corps and army troops and 50,000 in the service of supply.

The casualties in the American Army were about 260,000 of whom about 50,000 were battle deaths. As the army met with no serious reverses, the number of prisoners taken by the enemy was small, only 4,500. The casualties occurred mainly between May 28, 1918, when the 1st division attacked Cantigny and November 11. In its operations it captured 63,000 prisoners and about 1,400 pieces of artillery in addition to other arms and stores.

In accordance with the terms of the armistice, the Allies were to occupy the valley of the Rhine with its fortresses until final disposition by the treaty of peace. To the American Army was assigned the Coblenz sector and on November 13, the 3d Army, or Army of Occupation, was organized under the command of General Dickman to take possession as the German armies were withdrawn. As the terms of the armistice made it impossible for the Germans to renew hostilities, the war on the west front closed November 11, 1918.

CHAPTER XV.

OPERATIONS IN RUSSIA, RUMANIA, BULGARIA, ITALY AND TURKEY IN 1918.

Russia.—In accordance with the terms of the armistice of December, 1917, the delegates of the Bolshevik government of Russia and those of the four Central Powers met at Brest–Litovsk in the latter part of that month to discuss the terms of a permanent peace. It soon became evident that the Central Powers intended to insist on a dictated peace to which the Bolshevik delegates would not submit. After prolonged discussions the Central Powers decided to resume hostilities in order to force the Bolshevik government to accept the terms submitted to it. In the middle of February the northern German armies again advanced in the direction of Petrograd and Moscow meeting with little opposition as the Russian Army had practically disintegrated. When these armies reached the line running from Reval on the Gulf of Finland, one hundred and fifty miles from Petrograd, to Orsha on the Dnieper River on March 3, the Bolshevik government fearing the effects of a further advance accepted the terms offered. In accordance with these terms, the Baltic provinces of Esthonia, Livonia and Courland, and the central provinces of Lithuania and Poland ceased to be Russian territory.

The peace of Brest–Litovsk released the German and Austrian prisoners in Russia and many returned to the armies. To offset this advantage, many troops had to be left in the east for political and strategic reasons. Some of these troops were sent to Finland to assist the government of that state against Bolshevik uprisings.

Farther south, the state of Ukrainia declared its independence in 1917; this state extended from Poland and Galicia to the Black Sea and the Sea of Azov. Its independence had not been recognized by Russia and in January, 1918, Bolshevik forces were in possession of its capital, Kiev, and its seaport, Odessa. Early in February, 1918, the Central Powers recognized this new state and made with it a treaty of peace. When, therefore, in the middle of February the northern German armies advanced toward Petrograd and Moscow, the southern German armies advanced against Kiev and the Austrian Army against Odessa in order to free Ukrainia of Bolshevik forces and secure the grain promised by the Ukrainian government.

The Allied governments feared both the German influence in Russia and the effects of the Bolshevik propaganda on other coun-

tries. The Supreme War Council therefore decided to send troops to the Russian seaports of Murmansk and Archangel northeast of Petrograd to check German operations in Finland, to protect the supplies previously landed for the use of the Russian armies, and also to serve as a base for a Russian counter-movement against the Bolshevik government. It was assumed that this government did not have the support of the Russian people as it had not been ratified by a national assembly. The principal landing was made at Archangel to which point a small American force was sent in August, 1918.

When the German and Austrian prisoners were released, there were among the Austrian prisoners a large number of Czecho-Slovaks who did not wish to return to Austria during the war; these the Bolshevik government permitted to go eastward to Vladavostock. The detachments of this force had some difficulty in getting through due to interference of Bolshevik forces aided by German and Austrian prisoners. Allied troops were therefore landed at Vladavostock not only to protect supplies as at Archangel but also to aid the Czecho-Slovaks.

"Whether from Vladavostock or from Murmansk and Archangel, the only present object for which American troops will be employed will be to guard military stores which may subsequently be needed by Russian forces and to render such aid as may be acceptable to the Russians in the organization of their own self-defense.

"With such objects in view the Government of the United States is now co-operating with the Governments of France and Great Britain in the neighborhood of Murmansk and Archangel. The United States and Japan are the only powers which are just now in a position to act in Siberia in sufficient force to accomplish even such modest objects as have been outlined. The Government of the United States had, therefore, proposed to the Government of Japan that each of the two governments send a force of a few thousand men to Vladavostock with the purpose of co-operating as a single force in the occupation of Vladavostock and in safeguarding, so far as it may, the country in the rear of the westward moving Czecho-Slovaks."

It was proposed at that time to take the Czecho-Slovaks by sea to the west front to be employed against the Central Powers. These expeditions were only incidentally connected with the defeat of the Central Powers and were maintained for some time after their surrender but they form a part of the operations in Russia in 1918.

Rumania.—When in December, 1918, Russia made an armistice with the Central Powers, Rumania felt compelled to do the same; the treaty of peace was signed May, 1918, at a meeting of the dele-

gates at Bucharest. This treaty was never formally ratified and upon the surrender of Bulgaria, Rumania again entered the war.

Bulgaria.—The Bulgarians were very much dissatisfied with the terms of the treaty of Bucharest and resented the action of the German and Austrian governments who had dictated the terms. Of the Bulgarian Army at this time Ludendorff says:

"The Bulgarian Army had time for rest and training. But it could not be denied that since about March its spirit had visibly deteriorated, owing to bad food and clothing. The irritation against Germany was cleverly fomented by hostile propaganda and by Bulgarians who favored the Entente. The peace of Bucharest and the withdrawal of a few German units to the West added fresh fuel to it."

The declaration of war by the United States against Germany and Austria and also the entry of Greece on the side of the Allies had a great effect on Bulgaria. The failure of the German offensive in March, April and May to win a decision in France combined with the defeat of the Austrian attack in Italy in May resulted in the fall of the ministry in Bulgaria. It was certain now that the war could not be won by the Central Powers. The Bulgarian armies were no longer buoyed up by the hope of ultimate victory.

In December, 1917, General Sarrail, who had been in command of the French Army and later of the Allied armies since their landing at Salonika in 1915, was relieved by General Guillaumat and he by General d'Esperey in June, 1918; the latter commanded the 5th French Army in the battle of the Marne. By mid-summer, 1918, the Greek contingent was the largest force in the Allied Army on this front. The general situation in September, when the Germans were in full retreat in France on all fronts and the morale of the Bulgarian troops was at a low ebb, warranted an attempt to break the Bulgarian resistance and General d'Esperey was directed to make an attack. The Bulgarian position was known to be strong after its long occupation and there seemed little prospect of success by opening the attack either east of the Vardar River or around Monastir. General d'Esperey therefore decided to open the attack on the front between the Vardar and Monastir on the front occupied by French and Serbian troops. If successful here the attack could be extended right and left.

The artillery preparation began September 14 and on the following day the French and Serbs attacked on a seven mile front and captured the first and second lines that day, advancing some five miles. It is probable that the general retreat west of the Vardar began that night as the French and Serbs now advanced rapidly

although the country is mountainous. A few days after the first attack the British and Greeks penetrated the lines around Lake Doiran and the retreat became general. The Allied armies now advanced on Uskub from Monastir and up the Vardar valley fighting rear guards. On the 26th, a Bulgarian staff officer appeared on the British front under a flag of truce requesting a suspension of hostilities until the arrival of properly authorized delegates. The suspension was however not granted until the 29th when the armistice was signed at Salonika. On September 30th, 1918, hostilities ceased; at that time the Allies had reached Uskub, an advance of some 80 miles in an air line in fifteen days.

Some of the Allied troops now advanced northward driving back small columns of German and Austrian troops and at the end of October the whole of Serbia was in the possession of the Allies. Bulgaria was the first of the Central Powers to surrender.

Italy.—From December 1917 until the final Austrian offensive on May 19, 1918, there was no material change in the fronts of the opposing armies in Italy. During the winter the German divisions were withdrawn to form the XVII army on the west front and the Austrian armies were strengthened by troops drawn from other fronts and from the prisoners released by Russia.

"The situation of the Austro-Hungarian Army in Italy had improved, inasmuch as several hundred thousand prisoners of war had rejoined from Russia. The army had thus been strengthened and felt equal to making an attack on the Italians. General Von Arz (Chief of Staff) had sent officers to witness our attacks and was kept informed of our tactical experiences. He intended to assume the offensive in the first half of June, that is to say, soon after our attack on the Chemin des Dames. Thus, at the end of May and in the beginning of June, there was to be a great combined effort against the Entente."—Ludendorff.

The Italian armies had also been thoroughly reorganized and reequipped. Before the Austrian attack, several British and French divisions which had been sent to Italy in 1917 were sent to France to meet the German offensive and with them were sent two Italian divisions. Three British and two French divisions were left in Italy.

The Italian line consisted of three sectors; the right sector was along the Piave river from the Adriatic to Quero where the river enters the plain; the center sector ran westward from Quero over Monte Grappa to the Brenta river; the left sector ran from the Brenta westward via Asiago and Arsiera. Two Austrian and two Italian armies faced each other along the Piave river and two Austrian and two Italian armies faced each other along the center and

left sectors. The Italians had greatly strengthened their lines during the months of occupation and had a decided advantage in occupying interior lines with good communications between the sectors and with their reserves in rear.

The Austrian Chief-of-Staff probably hoped to make a surprise attack similar to the first attack by the Germans in March, but from all accounts it appears that the Italians were prepared for the attack through information received from deserters. The Austrian attack was preceded by a strong demonstration, May 13, made in the mountain passes west of Trent to attract the attention of the Italian commander and cause him to send reserves to this front; it however had no such effect. The real attack began with a powerful artillery preparation at 3:30 a. m. May 15 with gas and other shells which was kept up for four hours. The infantry attack was launched between 6:30 and 7 a. m.

The most critical point of the Italian front was its left sector on the Asiago plateau between the Brenta and Astico rivers. If the line were penetrated here it would turn the entire Italian line in the same manner that the Isonzo line was turned in the latter part of October 1917. This front attacked was held by the French and British corps with Italian troops on either flank. In the attack in this sector the Austrians penetrated the first line but were held by the second. On the second day however by the use of reserves the line was reestablished and although fighting was continued in this sector it was not serious. Between Piave and Brenta rivers the line was also penetrated but the Austrians were thrown back by the Italian reserves.

Along the Piave River the fighting was most desperate and lasted from May 15 until the night of May 22. Here both of the Austrian armies forced the crossing of the river and slowly pressed back the Italians until the afternoon of the 18th when a flood in the river carried away ten of the fourteen Austrian bridges and flooded the low ground along the river. The Italians now engaged in a fierce counter-attack and the fighting was of a desperate character until the night of the 22d when the Austrians began to recross the river. The withdrawal was effected without serious loss and the armies again faced each other in the original lines.

After the battle in May there were no important operations until the end of October when the war was practically over. At that time the German armies had been decisively defeated and were retreating to their last line. The Bulgarian armies had surrendered and

the Allies were approaching the Danube in Serbia; Rumania had again taken up arms. The Italian army was now ordered to make an attack.

At this time, the line of the Piave river was still held by two Austrian armies forming the old Isonzo group, one army held the line astride the Piave and between the Piave and Brenta rivers and another between the Brenta and Astico rivers. The plan of General Diaz, the commander in chief of the Italian armies, was to cross the Piave river on the front of the northern Austrian army on that front and thus penetrate the Austrian center in the general direction of Vittorio. In accordance with his plan the old 3d Italian Army was to hold the lower part ot the Piave River, two other Italian armies were to hold the fronts between the Piave and Brenta and the Brenta and Astico rivers. The remaining available troops including the two French and two British divisions were to form three armies which were to cross the Piave and force the Austrian center. Of these the left army was commanded by General Graziana of the French Army and the right army by the Earl of Cavan of the British Army. In order to faciliate the crossing of the left army, a preliminary attack was to be made between the Piave and Brenta by the Italian army on that front.

The battle was opened on October 24 by an attack between the Piave and Brenta rivers accompanied by demonstrations in the sector to the west. In the meantime on the main front preparations were being made to cross the Piave which was a formidable task. On the Earl of Cavan's front, the river was divided by a large island occupied by the Austrians; the main channel was on the west of the island. This island was secured by British troops by night attack and connected with the west bank by bridges. The main attack was to be made on the morning of the 25th but was delayed by a sudden rise in the Piave until the 27th.

On the night of October 26-27, the bombardment on the main front of attack was opened and that night the three armies began the construction of bridges to span the river and secure bridgeheads on the east bank. The crossing of the river proved more difficult than had been anticipated and only in front of the right of the three armies were the Allies able to cross and maintain all of their bridges. The center army experienced the greatest difficulty and here one of the corps used the bridges of the Earl of Cavan's army. However by the 28th the river was crossed and by the 30th, the three armies had penetrated the Austrian center and the Austrian armies on the Piave front were in full retreat which soon changed into a rout.

West of the Brenta the Austrian armies also began to retreat pursued by the Italians. On the 30th an Austrian corps commander with instructed delegates entered the Italian lines requesting an armistice; the terms offered were accepted on November 3 and war on the Italian front closed on the afternoon of November 4th. In the pursuit the Italian Army captured some 300,000 prisoners and 5,000 guns. In the Earl of Cavan's army was the only American force engaged on this front.

"On the 4th of November the 332d American regiment had their baptism of fire when forcing the passage of the Tagliamento. They took over 100 prisoners and suffered a few casualties when attacking the enemy's rear guards, an operation which they carried out with the same dash as has always been shown by American troops."—The Earl of Cavan's report.

Austria was the third of the Central Powers to surrender.

Turkey.—On the Armenian front the Russian armies began to disintegrate and withdraw toward the end of 1917. As a result the Turkish troops advanced and in February 1918 reoccupied Trebizond where the Russians had left large supplies. In the treaty of Brest-Litovsk, March 3d, the Bolshevik government of Russia had agreed to withdraw her troops from the Russian provinces of Batum Kars and Erivan on the Armenian frontier and the Turks at once advanced to take possession. From Trebizond the Turks advanced on Batum which was occupied in April. Farther south, Ezerum was reoccupied in March and the troops advanced to Kars which was occupied in April. Still farther south, the Turks advanced into Persia and occupied Tabriz in June and from there made their way across the mountains to Baku on the Caspian Sea in July. To prevent the capture of the oil field of Baku, a British force from the Mesopotamian force was sent across the northern part of Persia south of Tabriz to the Caspian port of Ensili to assist a small Russian force still believed loyal to the Allies. The Turks began their attack on Batum held by the Russians in the latter part of July and a small British force was sent to assist them. Batum however was captured about the middle of September; before its fall the British survivors reembarked for Ensili.

In the Bagdad zone of operations, in 1918 the British forces extended their zone of occupation both up the Euphrates and Tigris valleys. The only serious engagement occurred on the Tigris River some seventy miles south of Mosul, where the Turks were occupying a strong position to bar the road to that city. This position was attacked by a British column consisting of two divisions of infantry

and one of cavalry on the last days of October. By skillful maneuvers, the Turks were surrounded and October 30 the entire force of about 7,000 men surrendered. As a general armistice with the Turks was signed that day, when the British forces reached Mosul a few days later they took possession without opposition.

In Syria, at the beginning of 1918, the British were strengthening the line which they had taken at the close of 1917 running from the coast north of Jaffa across the plain and hills and around the north and east of Jerusalem. After their rapid advance through southern Palestine it became necessary to halt before a further advance.

"Any further advance northwards on my part was out of the question for the time being. Besides the construction of roads and the improvement of communications in the forward areas, stores of supplies and ammunition had to be accumulated. Until the railway had reached a point considerably nearer my front, this was of necessity a difficult task, and one rendered still more difficult by frequent spells of bad weather. Moreover, before a further advance could be made, it was necessary to drive the enemy across the River Jordan to render my flank secure. The possession of the crossings over the Jordan offered other advantages. These were:

(a) The enemy would be prevented from raiding the tract of country to the west of the Dead Sea.
(b) Control of the Dead Sea would be obtained.
(c) A point of departure would be gained for operations eastwards, with a view to interrupting the enemy's lines of communications to Hedjaz, in conjunction with the Arabs based on Akaba."—Allenby's report.

Akaba is a small town at the northeastern extremity of the Red Sea on the northern boundary of Hedjaz.

In February the Turks were driven from the hills east of Jerusalem across the Jordan and in the early part of March, the general line to the north of Jerusalem was advanced several miles to secure a larger frontage on the Jordan. An expedition to cross the Jordan and raid the Hedjaz railway was organized in the latter part of March. The column reached the railway but was able to effect little damage and recrossed the Jordan about the 1st of April. A second expedition east of the Jordan in April met with no greater success and recrossed about the 1st of May.

In April, General Allenby's operations were temporarily brought to a close by the calls for troops to meet the German advance in France. Two of his divisions were withdrawn and replaced by Indian divisions withdrawn from Mesopotamia. Nine regiments of volunteer cavalry and ten battalions of British infantry were withdrawn and replaced by a corresponding number of Indian troops. In May and July twenty-four additional battalions of British troops

were withdrawn and replaced by Indian troops. During the summer therefore the time was spent largely in reorganizing his army which was not ready to advance until the middle of September.

The military situation at the beginning of the final campaign was as follows:

"At the beginning of September, I estimated the strength of the IVth, VIIth and VIIIth Turkish Armies to be 23,000 rifles, 3,000 sabres and 340 guns. The IVth Army, 6,000 rifles, 2,000 sabres and 74 guns faced my forces in the Jordan valley. The VIIth Army held a front of some 20 miles astride of the Jerusalem–Nablus road with 7,000 rifles, and 111 guns, while the VIIIth Army front extended from Furkhah to the sea (20 miles) and was held by 10,000 rifles and 157 guns.

"In addition, the garrison of Maan and the posts on the Hedjaz railway north of it consisted of some 6,000 rifles and 30 guns.

"The enemy's general reserve, only 3,000 rifles in strength with 30 guns was distributed between Tiberias, Nazereth and Haifa. * * *

"I had at my disposal two cavalry divisions, two mounted divisions, seven infantry divisions, an Indian infantry brigade, four unallotted battalions, and the French detachment (the equivalent of an infantry brigade, with other arms attached), a total, in the fighting line, of some 12,000 sabres, 57,000 rifles and 540 guns.

"I had thus a considerable superiority in numbers over the enemy, especially in mounted troops."—Allenby.

After a careful study of the situation, General Allenby decided to make his main attack on the VIII Turkish Army which he hoped to destroy and by means of his cavalry cut off the retreat of this and the other armies.

"By reducing the strength of the troops in the Jordan Valley to a minimum, and by withdrawing my reserve from the hills north of Jerusalem, I was able to concentrate some 36,000 rifles, against 8,000, and 383 guns against 130. In addition two cavalry and one Australian mounted division were available on this front."

Two divisions were left in front of the VII Turkish Army with orders to be ready to attack; a mounted division with the unassigned troops was left in front of the IV Turkish Army. The troops withdrawn from the right and center reached their destinations by night marches.

The attack was to be preceded by a raid on the railway south of Damascus by an Arab raiding column assisted by British armored cars under Prince Faisal which had been secretly concentrated some fifty miles east of the railway. British bombing planes were also to take part in this raid.

The raids took place on the 16th and 17th of September temporarily stopping traffic and the movement of troops. The infantry

attack on the VIII Army began at 4:30 a. m. September 19 after a fifteen minute bombardment.

The Turkish Army was still under the command of the same German officer who had been in command since the advance on the Suez Canal in January, 1915, but the troops no longer had the morale that enabled them to defeat the first attacks on Gaza. They had been greatly demoralized by Allenby's operations in his advance on Jerusalem and were really an army only in name. The three armies were under the command of General Sanders, who had commanded the Turks in the defense of the Gallipoli Peninsula.

General Allenby gives the following summary of his last campaign:

"The operations which followed fell into five phases. The first phase was of short duration. In 36 hours between 4:30 a. m. on the 19th of September and 5 p. m. on the 20th of September, the greater part of the VIIIth Turkish Army had been overwhelmed, and the troops of the VIth Army were in full retreat through the hills of Samaria, whose exits were already in the hands of our cavalry."

The first phase began by an attack on the VIII Turkish Army and as soon as it became evident that the Turkish line was broken, the two divisions in front of the VII Turkish Army were ordered to join in the attack. The cavalry, massed near the coast, at once rode northward to cut off the retreat of the Turkish forces.

"In the second phase, the fruits of this success were reaped. The infantry, pressing relentlessly on the heels of the retreating enemy, drove him into the arms of the cavalry, with the result that practically the whole of the VIIth and VIIIth Turkish Armies were captured with their guns and transport. This phase witnessed the captures of Haifa and Acre and the occupation of Tiberias, and of the country to the south and west of the Sea of Galilee. As a result of the route of the VIIth and VIIIth Armies, the IVth Turkish Army, east of the Jordan, retreated, and Maan was evacuated."

This phase ended about September 24. Maan was a fortified post on the Hedjaz railway about 40 miles south of the Dead Sea. Haifa, Acre and Tiberias were all fortified towns.

"The third phase commenced with the pursuit of this army by Chaytor's Force, and closed with the capture of Amman, and the interception of the retreat of the garrison of Maan which surrendered."

This phase ended September 29 when the garrison of Maan, 5,000 men reached Amman, on the railway east of the Jordan and surrendered to the British force then in possession. Maj. Gen. Chaytor commanded a mounted division of Australian and New Zealand troops and was in temporary command of the forces facing the IV Turkish Army.

"The fourth phase witnessed the advance by the Desert Mounted Corps to Damascus, the capture of the remnants of the IVth Turkish Army, and the advance by the 21st corps along the coast from Haifa to Beirut."

This phase ended October 1 when the cavalry divisions on the left of the army and the Arab column under Prince Faisal entered Damascus.

"In the fifth phase my troops reached Homs and Tripoli without opposition. My cavalry then advanced on Aleppo, and occupied that city on the 26th of October."

Homs is a station on the railway between Damascus and Aleppo.

The great success which attended the operation of the army under General Allenby was due to his superiority in mounted troops, in leadership and training.

After the surrender of Bulgaria at the end of September, 1918, and the destruction of the Turkish armies in Palestine, the situation of Turkey was hopeless. In the latter part of October, negotiations were opened with the Admiral of the British fleet in the Aegean for an armistice which was finally signed October 30 and on the 31st the war with Turkey ceased. Turkey was the second of the Central Powers to surrender.

CHAPTER XVI.

STRATEGY OF THE WAR.

Diplomatic Strategy.—The diplomatic strategy leading up to the World War covered a long period of years whose incidents it is unnecessary to relate as they belong to the history of the period beginning with the Franco–German War of 1870–1871. The exact status of the alliances and understandings in force at the beginning of the war are known only in a general way. Immediately after war had broken out between the Allied and Central Powers both sides sought to strengthen their military forces by further alliances.

On August 23, Japan declared war against Germany as a result of pre-war alliance with Great Britain. The Japanese Army was at once employed in the siege of the German port of Tsingtau in China which was captured before the end of 1914. The Japanese Army was not employed in further military operations until a Japanese force with American and Allied troops was landed in Vladavostock. As Japanese troops were not employed on any of the principal fronts they had little effect on the general operations of the war.

About the end of October, 1914, Turkey joined the Central Powers probably also as a result of pre-war engagements with Germany. The intervention of Turkey resulted in the seizure of Egypt as a British Protectorate and the Dardanelles, Mesopotamia, Palestine and Armenia operations. Germany no doubt expected great results from this alliance on the Mohammedan subjects of Great Britain in India and Egypt but in this the German government was disappointed as the British authorities found no difficulty in maintaining their authority. Several British territorial divisions were sent to India to replace divisions of the Indian Army which contributed the main force that was employed in the Mesopotamian campaign and the final campaign in Palestine. From Egypt minor campaigns were conducted against uprisings in Sudan and against the Senussi tribes occupying territory under Italian control west of Egypt. As a minor offset to the Turkish alliance, the Allies secured the alliance of the Arabs of Hedjaz in 1917 who took part in the campaigns in Palestine and Syria.

The Turkish alliance probably prolonged the war due to the employment of Allied troops, that might have been utilized on the west and east fronts, in the various operations in Turkey. Outside of this

the principal advantage that accrued to the Central Powers from the Turkish alliance was the closing of the Dardanelles.

What the military policy of the Allies should have been with regard to Turkey will always be a subject of dispute as it was during the war. Notwithstanding great expense in men and money, the surrender of Turkey was brought about only when the war was practically over; the principal objective, the opening of the Dardanelles was not accomplished in time to have any effect on the military operations; the expensive Mesopotamia operations had only an after-war effect. The principal effect of the operations was to keep the greater part of the Turkish Army at home and prevented it from being employed on other fronts. To what extent it could have been employed on the east and west fronts is problematical in view of the unwillingness of the Turk to serve in distant lands and the lack of efficiency in the recruiting and supply branches of the army. It is probable that the sea power of the Allies which enabled them to make a descent at any part of the Turkish coast would have prevented any great force from being sent to the east and west fronts. The Turkish Army could engage in no important offensives from its own frontiers; Egypt was protected by the desert and Suez Canal and no ultimate result would have resulted from the invasion of Russian Armenia or Persia if the Allies were successful in their operations against Germany.

The Allies scored their first important diplomatic success when on May 23, 1915, Italy declared war on Austria. The Italian Army was an important accession to the Allied forces since it could immediately exert pressure on the Austrians and relieve the pressure on the Russians. The effect of the intervention of Italy was not as great in the spring of 1915 as was expected mainly due to the fact that Italy did not declare war until the Austrians had time to thoroughly intrench their frontier which caused a deadlock at once. Due to the incredible efforts of the Italian government 50 divisions were eventually placed in the field which caused the Austrians to move more and more troops to this front. In 1915 it was the Austrian forces withdrawn from the Russian front which prevented the Central Powers from driving the Russians wholly out of Galicia; in 1916 the forces thus withdrawn enabled Brusilov to carry out his successful offensive. The withdrawal of the Austrians also compelled the Germans to weaken their west front in order to replace the Austrians during 1916 when the situation became critical due to the intervention of Rumania. Although the Italians were compelled to retreat to the Piave in 1917, the effect of this retreat was overcome in May, 1918,

when the Austrian Army was repulsed in its last attack. As this occurred at the very time the Germans were repulsed in their attack on either side of Reims, it had a very discouraging effect on the Central Powers and greatly increased the confidence of the Allies. The final victory of the Italians in October, 1918, had no important effect on the war as by that time the war was won on the west front.

The Central Powers scored their second diplomatic success when in November, 1915, Bulgaria allied herself with the Central Powers. This alliance was the immediate result of the successful drive against the Russians. Its effects were very important since it enabled the Central Powers to invade Serbia without hesitation and secure a much needed railway connection with Turkey to supply her with munitions of war. The invasion of Serbia caused the Allies to land troops at Salonika and thus another front of operations was introduced. The advisability of continuing the occupation of Salonika after the Central Powers had complete possession of Serbia was also a subject upon which the military authorities of the Allies did not wholly agree.

The British authorities were inclined to withdraw from Salonika as there seemed to be no immediate prospect of the Allies assuming the offensive on this front with any great hope of success and British troops were already engaged on three other fronts in addition to Gallipoli which was about to be abandoned. The French however were insistent on holding the front as a base for future operations. Without this base, the Serbian Army which was to be reorganized could not be utilized and all hope of securing the alliance of Greece and Rumania would have to be abandoned. There was also a difference of opinion among the Central Powers as to the advisability of continuing the offensive for the possession of Salonika. It was at the request of the German G. H. Q. that the Bulgarians halted on the Greek frontier. General Falkenhayn, the German Chief of Staff, says:

"At the end of December and the beginning of January, 1916, the question of an attack on Salonika was again thoroughly examined more than once. The Austrian G. H. Q. was more favorably inclined toward the proposal than the Bulgarians although the former were unable to provide troops for the enterprise. The Bulgarians appeared less enthusiastic as they had already achieved their main war aim, the conquest of Macedonia.

"(German) G. H. Q. took up a less favorable attitude to the continuation of the offensive against Salonika with the aid of any substantial body of German troops so soon as it appeared that such an offensive was unnecessary to compel the Entente to renounce their designs on the Dardanelles."

Even had it been possible to capture Salonika its occupation would have been resented by Greece and would have caused friction between the Austrians and Bulgarians, neither of whom would have yielded to the other. On the other hand:

"The Entente troops that would be released in this way would be available for employment in other theatres of war, while the Bulgarians would not. They were not fitted for such employment, nor was the government bound to supply them. Any alteration of the convention on this point would have been very difficult to secure under the pressure of Bulgarian public opinion which was wholly unfavorable to such foreign undertakings. The Bulgarian people could only be favorably influenced in their attitude by feeling they were still threatened and under duty to fight, and by having an attractive war aim before their eyes. . . . If the Bulgarians kept strong detachments of the Entente forces occupied by this means, they would be rendering a great service to a common cause. . . . We had no need to fear a defeat, even if the Bulgarians were left with the smallest possible support of German troops. The lie of the ground was extraordinarily favorable to defense."

In view of the above statement as to the nature of the Bulgarian alliance it would appear that the Central Powers profited more by the Allied occupation of Salonika than the Allies themselves. A considerable force of British and French troops was maintained on this front in an almost purely defensive attitude until the middle of September, 1918, when the German armies had been decisively beaten on the west front. The force concentrated here no doubt influenced Rumania to declare war, but it was unable to prevent the Rumanian Army from being overwhelmed. In view of the sea power of the Allies, it is doubtful if Greece would have joined the Central Powers even if this force had been withdrawn. It influenced Greece to finally join the Allied Powers but too late to have any material effect on the war. At no time after 1915 was there any large German or Austrian force on this front. In 1916 all the German forces but about one division were withdrawn according to Ludendorff and even this was reduced in the winter of 1917–1918 to strengthen the west front.

The Allies scored their second diplomatic success when on August 27, 1916, Rumania declared war on Austria. The situation of Austria at the time was very critical as she was being fiercely attacked by the Italians on the Isonzo front and Brusilov had just broken through her lines on the east on a wide front practically destroying one of her armies. The Germans it was thought could offer little assistance as they had lost heavily in their unsuccessful attack on Verdun and were at the time engaged with the British and French in the great battle of the Somme in which they were being

steadily driven back. On their east front the northern Russian armies had resumed the offensive but not with the same spirit as Brusilov. Unfortunately the Rumanians had delayed too long in assuming hostilities and the offensive of Brusilov to the north of the Carpathians had reached its limit. The lines were again stabilized and the Central Powers were still able to find reserves that could be released. The offensive of the Salonika Army was not sufficiently successful to prevent German and Bulgarian troops from being employed against Rumania. The intervention of Rumania was deemed sufficiently critical to cause the Emperor of Germany to replace his Chief of Staff General Falkenhayn by General Hindenburg and to cause the Central Powers to give to the German Chief of Staff general control over the allied operations. The intervention of the Rumanian Army did not produce the results hoped for by the Allies but instead the army was overwhelmed and the province of Wallachia with its supplies fell into the hands of the Central Powers.

On the whole, outside of its moral effect, the Allies were little benefited by the intervention of Rumania while its food supplies were of great value to the Central Powers. Ludendorff says:

"In the year 1917 only Rumania enabled Germany, Austria-Hungary, and Constantinople to keep their heads above water."

At this time the Allied blockade and other war conditions made it difficult for the Central Powers to feed their armies and people and there was great discontent in all the countries.

Portugal also joined the Allies in 1916 but only furnished two divisions for the principal fronts; these divisions were attached to the British Army. Other Portuguese troops were employed in Africa.

In 1917 after the first revolution in Russia, the German government sent Lenin from Switzerland through Germany to Russia to foment further insurrection. Through the influence of Lenin and Trotsky the demoralization of the Russian Army was completed and in December a truce was declared on the east front. Had the Central Powers sought only the military advantages accruing to them from the new situation they might now have withdrawn practically all of their troops from the Russian front for operations in the west for which their armies were then being trained. But at this stage they seemed to forget the maxim of Napoleon:

"The first principle of war is that a battle should be fought only with all the troops that can be assembled on the field.

"When you are resolved to fight a battle collect your whole force. Dispense with nothing, a single battalion sometimes decides the day."

In the desire to gain after-war advantages, they prolonged the war on the east front far into 1918 to secure concessions from the Bolshevik government that were absolutely valueless unless the war were won. The harsh conditions of the peace of Brest-Litovsk and the unnecessary warfare were condemned even by many of the people of the Central Powers and weakened the government. Every diplomatic step taken by the Central Powers after the establishment of the truce benefited the Allies instead of themselves.

In April, 1917, the Allies received their principal material and moral reinforcement when the United States declared herself to be at war with Germany. This declaration was the direct result of war made on American commerce by the German U-boats. It was the United States that finally so reinforced the west front that the war was won on that front in the following year.

In June, 1917, Greece declared war on Bulgaria but as the Greek Army had been demobilized it was not until the middle of September, 1918, that the Greeks were able to sufficiently reinforce the Allied Army at Salonika to justify it in taking the offensive. By that time the war had been practically won on the west front.

Shortly after the United States declared war, the following States either severed diplomatic relations with Germany or declared war on her: Cuba, Panama, Costa Rica, Guatamala, Nicaraugua, Honduras, Haiti, Brazil, Liberia, Siam and China. None of these states had any influence on the military operations but they had an influence on the morale of the people of Germany, Austria and Bulgaria thus contributing to the effect of the successful operations of the Allied armies.

Military Strategy.—To understand the distribution of the German forces at the outbreak of the World War, it is necessary to go back a half century to the time, when after the defeat of Austria, General von Moltke made his plans for a possible war on two fronts against the combined forces of France and Austria.

"Should Austria take part in a war declared by France against Prussia the division of our forces into two equal parts would give us a preponderance of force neither on our western nor on our southern frontier. The first question to be decided is therefore against which army shall we assume the defensive at the outset with a weak force so that we may be able to assume the offensive against the other with a strong one.

"The Rhine and its fortresses make a much stronger defensive line against France than any we can organize along the Austrian frontier; should we adopt the defensive against France we can count with certainty that the Rhine held by 100,000 men can check any French advance for six or eight weeks. To offset this, a passive de-

fense of the Rhine would cause the South German States to remain neutral or take up arms against us. The French could also turn the left flank of our Rhine front by operating on Berlin via Worms and Franconia; while our offensive army in Austria, even if successful might in the meantime be brought to a standstill before the fortress of Olmutz or at the Danube. It is not improbable that the Austrians would abstain from undertaking operations in Bohemia and Moravia and await the arrival of their allies in the fortified camp of Olmutz or behind the Danube.

"Should we assume the offensive against France, we should probably have six or eight weeks in which we could operate with a free hand before Austria would be in a condition to interfere; she is now in financial straits and has a weak skeleton army organization which would require a much longer time to mobilize than our own. Should we invade French soil, the French will be too proud to wait for the assistance of Austria and we shall be attacked at once. Here we are sure to find an opponent. The size of the armies, the narrowness of the front of operations, and the difficulty of subsisting troops will compel each to seek a prompt decision and it is almost certain that inside the first week a battle must take place. If we are successful in this battle Austria will almost be compelled to sheath her half drawn sword. In the meantime should Austria invade Silesia and even our Mark provinces, so long as our fortresses hold out and our defensive army retires without being beaten, nothing is definitely lost. It is probable that in France, after the first lost battle, a change of dynasty will result; as we desire nothing of France the new powers would probably be willing to make peace.

"For all these reasons, I hold that *ten army corps* should be concentrated for the offensive in the Palatinate and *three* for the defensive be detached to operate against Austria. . . . It is understood that all our armed force is to be employed against France should we engage that power *alone or for a considerable time.*"

The essential features of the concentration of the German forces at the opening of the World War followed the above plan substituting Russia for Austria. The German military authorities in 1914 were influenced by the same general considerations as Moltke in 1868, the certainty of battle on the French frontier and the possibility of a general retreat of the Russian armies into the interior declining a decisive action at the beginning of the war. Of the German active corps therefore 22 were concentrated against France and only 3 were left on the Russian front.

The fatal mistake made by the German General Staff in its plan of operations was the invasion of Belgium which caused Great Britain to take up arms at once and led practically all neutral powers to fear the results of the war should Germany be successful. This might have been avoided had the Germans assumed the defensive in the west and the offensive against Russia. The elder von

Moltke in the later years of his life seems to have considered this plan as possibly the best as the Rhine front with its fortresses and railways would be able to defeat any effort of the French until the war on the Russian front was concluded. In view of what occurred during the war, it is certain that an offensive campaign in the east by strong Austro–German forces at the beginning of the war would have been successful and might have resulted in the revolution of 1917 taking place in 1914. In the meantime, although the entire French Army was concentrated on the Franco–German frontier, it is probable in view of what occurred in 1915, that a deadlock might have resulted in the west had only half the German forces been concentrated in the west. In commenting on Moltke's later views, General Falkenhayn says:

"The creator of the scheme carried out in 1914, General von Schlieffen, had on the contrary to take England's intervention very seriously into consideration. If this were done, then scarcely any other method of conducting the war was imaginable than that which was actually chosen. In view of the almost unlimited power of the Russians to evade a final decision by arms as long as they pleased, there was no hope of finishing with them before the enemies in the west had either won a decisive success or had strengthened themselves with their almost unlimited resources as to leave little prospect of any German success over them. The fact that the Russians in 1914 acted contrary to the intentions here ascribed to them, probably fully aware of the German scheme of concentration, is no proof to the contrary."

It is very probable that Great Britain would have intervened at a later stage had Germany sought to destroy France but it is doubtful if Great Britain would have intervened at once. In Russia, the German General Staff considered only the delay in securing a military decision and omitted any consideration of the internal conditions that had interfered with the military authorities in carrying out the Russo–Japanese war.

The scheme of concentration made by General Schlieffen differed from that actually carried out by his successor. Schlieffen provided a much weaker force in Alsace and Lorraine intending to make his main defense along the Rhine and with a maneuvering army based on Metz. He provided a much stronger force for the invasion of France via Belgium and Luxemburg. He assumed that if the French armies invaded Alsace and Lorraine, they would soon have to return to meet the great threat on their rear. In the scheme actually carried out the invading force was weakened in order to afford better protection for Alsace and Lorraine and perhaps with a view of breaking through the Toul–Epinal gap as was attempted. It is probable

that greater results would have been secured had the original plan been carried out since the invading force proved too weak for the task imposed on it.

The German General Staff evidently considered it impossible to invade France by concentrating between Luxemburg and Switzerland and they were probably right as the entire French Army was concentrated on this front. They were unable to break through the Toul–Epinal gap in 1914 and were unable to capture Verdun in 1916.

Having invaded Belgium and caused Great Britain to declare war, a decision on the west front was inevitable. It is not improbable that a successful decision on this front might have been secured in 1914 had not General Joffre followed the reasoning of Moltke that

"So long as our fortresses hold out and our defensive army retires without being beaten nothing is definitely lost."

The retreat of the French and British armies from the frontier until their flanks were protected by Paris and Verdun when they could assume the offensive without endangering these flanks proved the correctness of Moltke's reasoning. Only once did the Germans have an opportunity of winning a decision during the retreat and that was immediately after the battle of Le Cateau. Had Kluck after that battle immediately wheeled his army to the left to assist Bulow in his operations against the 5th French Army, it is probable that the 5th French Army would have been decisively beaten. This opportunity was lost when he moved in the direction of Paris.

The battle of the Marne ended the hopes of the Germans to win an early decisive victory on the west front as in the war of 1870–1871 and the failure of the battle of Flanders compelled the German G. H. Q. to content itself for the time being with assuming the defensive on this front to relieve the pressure in the east notwithstanding the fact that the offensive in the west would become more difficult from month to month due to the growth of the British Army.

It has been suggested that the Germans made a mistake in not taking the Channel ports in their first invasion of France. This does not seem a just criticism as the principal objective at the outbreak of any war is the enemy's army. To have taken and held these ports would have required a considerable force and would have greatly reduced the strength of the I Army which had already been obliged to detach troops to hold the Belgian Army in check.

The French plan of concentration has been criticised because it did not provide for a more thorough protection of the Belgian frontier between the Channel and the Sambre River; this does not seem

to be warranted. It is quite certain that the French had reason to expect British protection of the left of their line in case Belgium was invaded, and it was not foreseen that the Belgian–Meuse fortifications would fall so quickly. Before the actual concentration of the German armies on the frontier, it was by no means certain that the Germans would assume the offensive against France and the defensive against Russia although that seemed probable. Had the Germans adopted the opposite plan, it became the duty of the French to invade Germany as rapidly as possible to compel the Germans to weaken their east front. Even should Germany assume the offensive in the west, it was by no means certain that she would be able to maintain it until a decision was reached if the Russian armies were quickly mobilized and invaded East Prussia. Had the armies of Rennencamp and Ssamsanow been conducted with greater skill, it is quite possible that the Germans might have been obliged to withdraw their entire I Army from the west instead of two corps and a cavalry division only. Even the withdrawal of these troops seriously impaired the German plan of operations. Whatever the German plan, it was essential for General Joffre to concentrate his forces in such a manner that his front could not be easily penetrated. It was by this means that he prevented the Germans from penetrating the Toul–Epinal gap and encircling his right after the first reverse in Lorraine, and it prevented the Germans from penetrating any other part of his front after the battles on the frontier. It also enabled him after his retreat to the Marne to resume the offensive without delay when the opportunity offered. Had the French armies been deployed on a more extensive front at the beginning of operations, it seems probable that they would have met with disaster.

The Russian plan of operations was a good one as the invasion of the provinces of East Prussia and Galicia was the essential first operation of the war and was the best means of rendering aid to the French and Serbian armies. The failure of the East Prussian campaign was due to inferior generalship which destroyed to a large extent the advantage gained by the initial offensive. The German victory of Tannenberg made it possible for the Germans to go to the relief of the Austrians sorely pressed in Galicia, and prevented the Russians from exploiting their success in that province.

The Austrian plan of concentration was very defective. As soon as it became evident that Russia was mobilizing for war, the attempt to conduct an offensive campaign in Serbia should have been abandoned and all her available forces should have been concentrated on

her Russian frontier. The failure to unite her forces resulted in the two disastrous campaigns in Serbia and the heavy losses experienced by her armies in their vain attempt to prevent the Russian invasion of Galicia and Bukowina. It also compelled the Germans to halt their offensive in the north or to transfer troops from the west front in order to prevent the Russians from further exploiting their successes on the Austrian front. With the addition of the forces unnecessarily concentrated against Serbia, it is not improbable that the Austrians might have held their own against the Russian forces concentrated for an invasion of Galicia and Bukowina.

The conduct of the war after 1914 was based on the following broad principles. The war could be won by the Central Powers only if the German Army could by military victories compel the British and French governments to make peace. In favor of the Central powers the war had to be won on the west front. The only result that could be hoped from success against Russia was to strengthen the German forces on the west front. Any success achieved by the Austrians in Italy, by the Bulgarians on the Salonika front, or by Turkey would have only transient effect.

The Allies on the contrary might achieve success not only by decisively defeating the German Army but also by defeating her allies in succession. The sea power of the Allies gave them the opportunity of landing and supplying troops at any point of the theatre of war which could be reached by their shipping. The general policy therefore was to employ the mass of British, French and Russian armies in an attempt to destroy the German Army while small forces were at the same time detached to attack her allies in Turkey and at Salonika.

In 1915, due to the thorough way the west front was intrenched, the German forces were employed mainly in relieving the pressure of the Russians on the east front. Greater results on that front might possibly have been secured had the German Chief of Staff, General Falkenhayn, permitted Generals Hindenburg and Ludendorff to have free hand. They were more familiar with local conditions and the character of the Russian troops and their commanders. Falkenhayn was too cautious to secure the maximum results and was disinclined to engage in war to the finish with Russia. In support of his view he could point to the French attack in Champagne which just failed of being a great success.

At the close of 1915, the defensive situation was sufficiently satisfactory to the Central Powers to permit General Falkenhayn to again attempt to secure a decision on the west front by an attack

on the French. Verdun was an attractive objective, which he believed would be defended by the French to the limit of endurance and in the struggle he hoped to exhaust the French Army. In his attempt to capture Verdun or at least to exhaust the French Army he was defeated and when relieved in August of that year he was engaged in a defensive battle with the British and French in the west and with the Russians in the east in which the German armies were being driven back in the west and the Austrians in the east. The latter part of 1916 was spent by his successor, General Hindenburg, in defense on the west and east fronts and in the offensive campaign against Rumania.

The offensive begun on the west front in the middle of 1916 was continued throughout the year 1917 with the general result of exhaustion on both sides. The whole east front was practically quiet due to revolutions in Russia ending in suspension of hostilities in December.

For the third time therefore German G. H. Q. returned to the west front in 1918 to secure a decision. What the result might have been had the Germans withdrawn all their troops from the east front or had the American reinforcements not reached France, can only be conjectured. The supreme effort failed and the war was over.

As previously stated, no Allied victory was secured on any other front in time to affect the final result. Had the Germans remained on the defensive on the west front in 1918, the operations on these fronts might have had an important influence. Whether the Allies could have shortened the war by the employment of the forces assembled in the Balkans and in Turkey had they been concentrated on the west front is an open question. The Gallipoli operation was sound strategically but as Ludendorff says unless such an operation is tactically possible its strategic value is of no avail. Whether the operation should have been tactically possible at the time it was undertaken is still a subject of dispute.

CORRECTIONS AND ADDITIONS.

Page

9 In second line above table after "concentration" add "as modified about the middle of August".

In table insert the numbers of the corps as follows:—

Army of Alsace, 7th and 19th corps.

First Army, 8th, 13th, 14th, 21st corps.

Second Army, 9th, 15th, 16th, 18th and 20th corps.

Third Army, 4th, 5th and 6th corps.

Fourth Army, 2d, 11th, 12th, 17th and Colonial corps

Fifth Army, 1st, 3d and 10th corps.

Erase "2 cavalry corps".

Paragraph under table should read "Of the ten cavalry divisions, three formed the 1st cavalry corps, operating on the left, two formed the 2d cavalry corps with the 2d Army, and one division was with each of the other five armies".

12 In table insert the numbers of the corps as follows:—

I Army, 2d, 3d, 4th and 9th corps.
3d and 4th reserve corps.

II Army, 7th, 10th and Guard corps.
7th, 10th and Guard reserve corps.

III Army, 11th, 12th and 19th corps.
12th reserve corps.

IV Army, 6th, 8th and 18th corps.
8th and 18th reserve corps.

V Army, 5th, 13th and 16th corps.
5th and 6th reserve corps.

VI Army, 1st, 2d and 3d Bavarian corps and 21st corps.
1st Bavarian reserve corps.

VII Army, 14th and 15th corps.
14th and 15th reserve corps.

Substitute for three lines under the table the following:—

German Cavalry corps.

1st corps, 5th and Guard divisions with II Army.

2d corps, 2d, 4th and 9th divisions with I Army.

3d corps, 7th, 8th and Bavarian division with VI Army.

4th corps, 3d and 6th divisions with V Army.

22 Next to the last line, change "left" to 'right".

23 Second line, change "left" to "right".

25 First line of second paragraph, change 'second" to "first".

29 Next to last paragraph, third line, change "2d" to "3d".

30 Eighth line from bottom, change "I" to 'IV".

36 In lower half of page after (b) second and third lines should read "Pont sur Yonne-Nogent sur Seine-Arcis sur Aube-Brienne le Chateau-Joinville etc".

44 In paragraph beginning "The III corps", substitute "Grand" for "Petit".

45 Next to last paragraph, change "Orne" to "Ornain".

47 Under 5th Army, substitute "3d corps" for "2d corps".

48 Last line of second paragraph, substitute "8th" for "7th".

The paragraph beginning "On the 7th" should end with the sentence "On this day Bulow was obliged to release the III corps at noon and the IX corps at night which required constant changes in his line". This sentence should be stricken out of the paragraph beginning "On the 8th".

48 Fourth line from bottom change "Grand" to "Petit"

49 In table change "C.P.of Bavaria" to "C.P.of Wurtemberg"

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